



# ECTS STUDY GUIDE

2009-2010

**Seinäjoen ammattikorkeakoulu**  
SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES



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# Seinäjoki University of Applied Sciences

## *Office of Seinäjoki University of Applied Sciences*

P.O.Box 412 / Keskuskatu 34 (Campus building), FI-60101 Seinäjoki

Tel. +358 20 124 5000, fax +358 20 124 5001

E-mail: seamk.toimisto@seamk.fi

www.seamk.fi

## *International Office of Seinäjoki University of Applied Sciences*

P.O. Box 412 / Keskuskatu 34 (Campus building), FI-60101 Seinäjoki

Tel. +358 20 124 5004, fax + 358 20 124 5001

E-mail: international.office@seamk.fi

## *Admissions Office*

P.O. Box 412 (visiting address: Keskuskatu 34), Kampustalo 2nd floor

FI-60101 Seinäjoki

tel. +358 20 124 5208

fax +358 20 124 5022

email: admissions@seamk.fi

## Academic Calendar

At Seinäjoki University of Applied Sciences tuition is given during 10 months (ca 40 weeks). The academic year is divided into five periods, one of which is implemented in summer, primarily in June or alternatively in August. Teaching can also be arranged at other times.

The periods for the academic year 2009–2010 are the following:

1. 1.9.–25.10.2009
2. 26.10.–20.12.2009
3. 4.1.–21.3.2010
4. 22.3.–30.5.2010
5. 31.5. – 27.6.2010 or alternatively 3.8. – 31.8.2009.

In October and March most students have a week of independent study, during which contact teaching is not arranged. There is also a two-week break at Christmas.

Graduations will be arranged as follows:

- Friday 23 October 2009
- Friday 18 December 2009
- Friday 19 March 2010
- Wednesday 21 May 2010
- Friday 18 June 2010

According to the Decree of Universities of Applied Sciences (16 June 2004/497), to complete a year of studies requires on average 1600 hours of student work, which produces 60 credits.

## Administration and academic authorities

Seinäjoki University of Applied Sciences is maintained by the Joint Municipal Authority for Education, which is formed by 14 South-Ostrobothnian municipalities. The Joint Municipal Authority also runs a research library, R&D units and Seinäjoki Vocational Education Centre that provides secondary-level vocational education. The whole Joint Municipal Authority employs more than 1100 people.

The Council of the Joint Municipal Authority holds the supreme power of decision, while the Board of the Joint Municipal Authority is the highest executive authority. Dr Tapio Varmola is both President of the Joint Municipal Authority and Rector of the University of Applied Sciences.

## Board of the Seinäjoki University of Applied Sciences

The operations of Seinäjoki University of Applied Sciences are led by the Board of the University of Applied Sciences chaired by the President/Rector. The Board consists of members representing the academic and non-academic staff and students of the university as well as representatives of working life.

## Management of Seinäjoki University of Applied Sciences

The two main areas in the operations of the University of Applied Sciences are education and research & development. The educational operations are led by Vice President Jouni Niskanen, while R & D Director Hannu Haapala is in charge of research and development activities. Central administration and coordination tasks are conducted in the office of the university which is located in the campus area in Seinäjoki.

Education is offered by five educational units/faculties, which are led by Deans.

## General Description of activities

### SeAMK – Seinäjoki University of Applied Sciences

Seinäjoki University of Applied Sciences is a multidisciplinary regional institution of higher education, which offers education in seven fields of study. It offers 20 Bachelor-level and seven Master-level programmes. In addition, continuing education and professional specialisation studies are available.

#### *Fields of education*

- Culture
- Social sciences, Business and Administration
- Natural Sciences
- Technology, Communication and Transport
- Natural Resources and the Environment
- Social services, Health and Sports
- Tourism, Catering and Domestic Services

#### *Education leading to Bachelor's degrees*

Bachelor's degrees are the fundamental degrees of the universities of applied sciences. The length of studies varies between 210 and 240 ECTS credits and the duration between 3.5 and 4 years depending on the programme.

The most important objectives of studies are professional development and growth into expertise. The competences required by working life form the basis of the curricula. Theoretical studies are supported by a strong connection with working life, for example in practical training, development tasks, projects and thesis work.

In addition to knowledge and skills in one's professional field, a graduate from a university of applied sciences needs design and evaluation skills, ability to make decisions, creativity and social skills. These qualities are trained in different learning situations: during lectures and exercises, team assignments and contacts with working life.

Learning takes place by means of different methods and in various surroundings led by a teacher, through independent studying or in virtual learning environments. Students also have an opportunity to study or do their practical training abroad.

#### *Education leading to Master's degrees*

A Master's degree (a second-cycle polytechnic degree) is a new type of higher education degree, the aim of which is to combine studies and development of working life. Practically-oriented education deepens students' professional know-how and expertise. The degree provides students with the knowledge and skills to work in demanding expert, development and management tasks of their own field and gives new opportunities of career development. It gives the same qualifications as a Master's degree taken at a university.

A Master's degree taken at a university of applied sciences is meant for a person who has taken a Bachelor's degree in a university of applied sciences or other applicable higher education degree and who has at least three years' work experience in the field. The length of the degrees is either 60 or 90 ECTS credits depending on the field.

Seinäjoki University of Applied Sciences offers seven programmes leading to a Master's degree:

<i>Degree Programme</i>	<i>Head of Programme</i>
* Development of Agriculture and Rural Enterprises	* Jussi Esala, tel. 020 124 5745
* Social Work	* Timo Toikko, tel. 040 830 4189
* Entrepreneurship and Business Competence	* Anne-Maria Aho, tel. 020 124 4930
* International Business Management	* Päivö Laine, tel. 040 830 4175
* Construction	* Heikki Ylihärtilä, tel. 040 830 4153
* Development and Management of Social Work and Health Care	* Contact person: Eija Kyrönlähti, tel. 020 124 5186
* Management of Technology Know-how	* Pauli Huhtamäki, tel. +358 20 124 5310

### ***Education leading to Bachelor's degrees for adults***

SeAMK provides degree-level study programmes intended for adult students. The supply of degree programmes vary annually, since the programmes are designed to meet the needs of labour market and the demand. The extent of most degree programmes is either 210 or 240 credits.

### ***Professional specialisation studies***

Professional specialisation studies are extensive supplementary studies which support professional development and they are primarily arranged for people with higher education or vocational degree or other equivalent level of education. The extent of Professional specialisation studies are 30–60 credits.

### ***Open education in universities of applied sciences***

Open education is also provided in Seinäjoki University of Applied Sciences (SeAMK). Education is available for everyone, regardless of previous studies or age. Open studies in university of applied sciences are mainly courses and modules of the degree programmes. Studies conducted in open education can be recognised if the student later gains the status of a degree student.

### ***Continuing education***

Continuing education is a flexible and multifaceted form of meeting the educational needs of companies and organisations. Continuing education courses are characteristically of shorter duration than other types of education and is often implemented as a training project.

### ***Number of students and staff of Seinäjoki University of Applied Sciences***

Total number of students	4556
Adult students	703
Number of staff	410

### ***Research and development***

Research and development (R&D) is one of the three primary tasks of universities of applied sciences: education, research and development, and regional development.

According to the R&D strategy (2008–2010), the expertise of R&D at Seinäjoki University of Applied Sciences consists primarily of applied research and development work. Development projects and services serving the working life of the area are of great importance. Projects and services are closely connected with education and the development of the industry, commerce and working life of the area. Most of the work is conducted in South Ostrobothnia, but cooperation partners often come from other parts of Finland and from abroad.

The best know-how of Seinäjoki University of Applied Sciences is productized and offered to customers as market-priced services. New project ideas often arise in connection with service activities, and in this way projects and services support each other.

### ***SeAMK Projects***

SeAMK Projects coordinates our project activities. Seinäjoki University of Applied Sciences participates to an increasing degree in extensive research projects as an expert in applied research. International projects become more common, and staff and student exchanges promote internationalisation. Also the numerous theses produced by our students are an important resource in research and development. A thesis commissioned by a company or organisation gives the student hands-on knowledge of working life. It may also open the door to employment. Teachers' own research activities and doctoral dissertations also strengthen our research competence.

According to our strategy, the focus of our projects is on topics dealing with entrepreneurship, internationalisation and regional growth. Seinäjoki locates two national centres of expertise in the fields of intelligent technology and food industry. Consequently, the region of South Ostrobothnia has the profile of top expertise in these fields. We also participate in joint projects together with the EPANET professor network.

### ***SeAMK Services***

SeAMK Services sells and markets the knowledge and skills of Seinäjoki University of Applied Sciences to companies and organisations. The objective of SeAMK Services is to make the know-how of SeAMK better-known in the area and to make it easier for companies and organisations to contact SeAMK. The products of SeAMK Services are non-free education, research and development services. Most of the services are produced at educational units. More information can be found on the web pages at the address [www.seamkpalvelut.fi](http://www.seamkpalvelut.fi).

## **Educational Units/Faculties**

### ***SCHOOL OF CULTURE AND DESIGN***

Jurva, Seinäjoki  
Dean: Irmeli Jussila

#### ***Design***

Kotikouluntie 1, 66300 Jurva  
Tel. +358 20 124 5900, telefax. +358 20 124 5901  
[kulttuuri.opintotoimisto@seamk.fi](mailto:kulttuuri.opintotoimisto@seamk.fi)

#### ***Cultural Management & Library and Information Services***

P.O.Box 416 / Kampusranta 9 A, 60101 Seinäjoki  
Tel. +358 20 124 4946, telefax +358 20 24 5986  
[kulttuuri.opintotoimisto@seamk.fi](mailto:kulttuuri.opintotoimisto@seamk.fi)

#### ***Conservation***

Törnäväntie 26, 60200 Seinäjoki  
Tel. +358 20 124 5312, telefax +358 20 124 5337  
[rakennuskonservointi@seamk.fi](mailto:rakennuskonservointi@seamk.fi)

### ***BUSINESS SCHOOL***

Seinäjoki, Kauhava, Kauhajoki  
Dean: Kari Ristimäki

Koulukatu 41, 60100 Seinäjoki  
Tel. +358 20 124 5400, telefax +358 20 124 5401  
[liiketalous.opintotoimisto@seamk.fi](mailto:liiketalous.opintotoimisto@seamk.fi)

Kauppatie 109, 62200 Kauhava  
Tel. +358 20 124 5399, telefax +358 20 124 5388  
[yrittajyys@opintotoimisto@seamk.fi](mailto:yrittajyys@opintotoimisto@seamk.fi)

P.O.Box 19 / Topeeka 47, 61801 Kauhajoki  
Tel. +358 20 124 5600, telefax +358 20 124 5601  
[ravitsemisala.opintotoimisto@seamk.fi](mailto:ravitsemisala.opintotoimisto@seamk.fi)

### ***SCHOOL OF TECHNOLOGY***

Seinäjoki  
Dean: Jorma Nevaranta

P.O.Box 64 / Kampusranta 9 A, 60320 Seinäjoki  
Tel. +358 20 124 4903, telefax +358 20 124 4909  
[tekniikka.opintotoimisto@seamk.fi](mailto:tekniikka.opintotoimisto@seamk.fi)

### ***SCHOOL OF AGRICULTURE AND FORESTRY***

Ilmajoki, Ähtäri  
Dean: Antti Pasila

Ilmajoentie 525, 60800 Ilmajoki  
Tel. +358 20 124 5700, telefax +358 20 124 5701  
[maa.opintotoimisto@seamk.fi](mailto:maa.opintotoimisto@seamk.fi)

Tuomarniementie 55, 63700 Ähtäri  
Tel. +358 20 124 5800, telefax +358 20 124 5801  
metsa.opintotoimisto@seamk.fi

### ***SCHOOL OF HEALTH CARE AND SOCIAL WORK***

Seinäjoki  
Dean: Asta Heikkilä

Social work: P.O.Box 158 / Keskuskatu 32 E, 60101 Seinäjoki  
Tel. +358 20 124 5100, telefax +358 20 124 5101  
sosiaali.opintotoimisto@seamk.fi

Health Care: Koskenalantie 17, 60220 Seinäjoki  
Tel. +358 20 124 5157, telefax +358 20 124 5151  
terveys.opintotoimisto@seamk.fi

## **Library and Information Services**

The library and information services of the institution are provided by the libraries of the faculties, Health Library, located in Health Technology Center Mediwest and Campus Library, located in the Campus Building. They offer library and information services for the staff and students of Seinäjoki University of Applied Sciences and other educational institutions. The libraries provide literature and magazines that support the studies and the thesis process. Course literature is lent at the Campus Library only. The loan period of course literature is two weeks. Any required material unavailable in Seinäjoki, can be borrowed from other libraries. Inter-library loans can be made at the Campus Library.

At the Institution, independent information search is encouraged. The staff at Campus Library, library of Seinäjoki University of Applied Sciences, participates in the teaching of information gathering skills and provide user training in the libraries. National and international CD databases and access to the Internet are provided to the students. The objective is to teach the students to use different databases and all the library and information services in the region.

The Campus library collections consist of non-fiction and research literature, textbooks, periodicals and electronic material. The unit libraries specialise in the subjects taught in the faculty. Collections of Campus Library can be browsed through the Plari database <http://plari.amkit.fi/>

When borrowing books you need a Plari library card, available in any of the faculty libraries and Campus Library. You will need a form of identification when applying. The card is free, personal and you are responsible for all materials borrowed on your card. When obtaining the card you become responsible for obeying the library rules.

Contact information, opening hours and other information about library services can be found on the Internet <http://www.seamk.fi/kirjasto>

### ***Campus Library / Social Work Library / Technology Library***

address: P.O.Box 97 (Keskuskatu 34), 60101 Seinäjoki  
Mon – Wed 9 – 18, Thu – Fri 9 – 17  
tel. +358 20 124 5040  
kampuskirjasto@seamk.fi

### ***Agriculture Library***

address: Ilmajoentie 525, 60800 Ilmajoki  
Mon, Wed – Thu 9 – 16, Tue 9 – 18, Fri 9 – 14  
tel. +358 20 124 5711  
maaseutu.kirjasto@seamk.fi

### ***Forestry Library***

address: Tuomarniementie 55, 63700 Ähtäri  
Mon, Wed – Thu 9 – 16, Tue 9 – 18, Fri 9 – 14  
tel. +358 20 124 5830  
metsa.kirjasto@seamk.fi

### ***Business Library***

address: Koulukatu 41, 60100 Seinäjoki  
Mon, Wed – Thu 9 – 16, Tue 9 – 18, Fri 9 – 14  
tel. +358 20 124 5455  
liiketalous.kirjasto@seamk.fi



**Design Library**

address: P.O.Box 4 (Veistokouluntie 2,66301 Jurva)  
 Mon, Wed – Thu 9 – 16, Tue 9 – 18, Fri 9 – 13  
 tel. +358 20 124 5915  
 muotoilu.kirjasto@seamk.fi

**Hospitality Management Library**

address: P.O.Box 19 (Topeeka 47), 61801 Kauhajoki  
 Mon, Wed – Thu 9 – 16, Tue 9 – 18, Fri 9 – 14  
 tel. +358 20 124 5641  
 ravitsemis.kirjasto@seamk.fi

**Health Library**

address: Koskenalantie 16, 60220 Seinäjoki  
 Mon – Fri 9 – 17  
 tel. +358 020 124 5230  
 terveys.kirjasto@seamk.fi

**Entrepreneurship Library**

address: Kauhava City Library, Kauppatie 88, 62200 Kauhava  
 Mon – Fri 12 – 19, Sat 11 – 14  
 tel. +358 6 2412 9820  
 kirjasto@kauhava.fi

## Studies at a university of applied sciences

Students of universities of applied sciences gain both theoretical knowledge and practical training in their own field. Studies at a university of applied sciences are characterised by varied teaching and learning methods. The amount of traditional lecturing has been reduced and the school emphasises the students' responsibility for their own studies. In modern society, information increases and diversifies constantly. Therefore it is important that students adopt the idea of lifelong learning, and independent search for information during and after their studies. The studies lead to degrees, which are higher education degrees for demanding tasks in working life. The degrees and titles are determined by the Ministry of Education.

**Generic competences of polytechnic graduates**

A project initiated by Arene and funded by the Ministry of Education has produced national guidelines for subject-specific competences and non-specific, generic competences of polytechnic graduates. The subject-specific competences can be found in the description of each degree programme.

Competences are understood as wide-ranging combinations of know-how – composites of knowledge, skills and attitudes possessed by an individual. Competences illustrate the person's proficiency, capacity and ability to perform in professional tasks.

The subject-specific competences form a base for the student's development in his/her career and expertise. The generic competences are common to different degree programmes and subject fields, but they may have different emphases and vary in importance in different professions and vocational tasks. The generic competences lay a foundation for the person's participation and collaboration in working life as well as for his/her professional development.

Generic Competences of Polytechnic Graduates  
 19 April 2006:

<b>Generic competences</b>	<b>Description of the competence, first-cycle graduates</b>	<b>Description of the competence, second-cycle graduates</b>
<b>Learning competence</b>	<ul style="list-style-type: none"> <li>• is able to self-evaluate one's competences and define his/her development and learning needs</li> <li>• recognises one's learning style orientation and is able to conduct studies independently and develop one's learning strategies</li> <li>• is capable of collaborative learning and sharing knowledge in teams and working communities</li> </ul>	<ul style="list-style-type: none"> <li>• is able to self-evaluate one's competences and expertise in a versatile and systematic way and to define one's development and learning needs</li> <li>• is equipped for life-long learning and understands and self-directs one's learning process</li> <li>• is able to study together and share one's learning and expertise in different expert teams and networks</li> </ul>

	<ul style="list-style-type: none"> <li>• is able to operate in changing environments and to recognise and utilise available learning opportunities and scopes for action</li> <li>• is able to plan, organise and develop one's own actions</li> </ul>	<ul style="list-style-type: none"> <li>• is able to work initiatives and to anticipate changes and needs for change</li> <li>• is able to plan, organise and develop one's actions</li> </ul>
<i>Ethical competence</i>	<ul style="list-style-type: none"> <li>• is able to apply the value systems and ethical principles of the subject field in one's conduct and tasks</li> <li>• takes responsibility of one's own actions and works according to the jointly agreed principles and measures</li> <li>• is able to apply the principles of sustainable development in one's actions</li> <li>• is able to take other people into account in one's actions</li> </ul>	<ul style="list-style-type: none"> <li>• is able to apply the value systems and ethical principles of the subject field in one's conduct and tasks as an expert and a developer of working life</li> <li>• takes responsibility of one's own actions and works according to the jointly agreed principles and measures</li> <li>• is able to apply the principles of sustainable development in one's actions and knows the social responsibility of one's organisation</li> <li>• is able to cater for others in one's actions and make decisions considering an individual, community and a society at large</li> </ul>
<i>Communicative and social competence</i>	<ul style="list-style-type: none"> <li>• is capable of listening to others and communicating in writing, speech and visually using different communicative styles</li> <li>• is able to function in the communicative and interactive situations typical of the field</li> <li>• understands the principles of group and teamwork and is able to work together with others in multidisciplinary teams</li> <li>• is able to utilise information and communications technology at one's work</li> </ul>	<ul style="list-style-type: none"> <li>• is able to listen to others and communicate in writing, speech and visually with different target groups</li> <li>• is able to manage in different communicative and interactive situations and to organise and create professional networks</li> <li>• understands the principles of group and team work and is capable of working together in multidisciplinary teams also as a team-leader</li> <li>• is able to utilise information and communications technology at one's work</li> </ul>
<i>Development competence</i>	<ul style="list-style-type: none"> <li>• is able to retrieve and analyse information of one's subject field, to critically evaluate it and to perceive entities in a holistic way</li> <li>• knows the basic principles and methods of research and development work and is able to conduct small-scale research and development projects applying the existing knowledge of the field</li> <li>• knows the principles of project work and is able to work in projects</li> <li>• adopts an initiative and proactive approach to work and is capable of problem solving and decision making at one's work</li> <li>• understands the principles of profitable and customer-focused operations and possesses entrepreneurial skills</li> </ul>	<ul style="list-style-type: none"> <li>• is able to retrieve and analyse information of one's own subject and neighbouring fields and to critically evaluate and holistically perceive it as well as to generate new knowledge</li> <li>• masters the methods of research and development work and is able to independently carry out R&amp;D projects of one's field</li> <li>• knows the intricacies of project work and is able to work in projects and manage them</li> <li>• works initiatives and proactively and is able to start and implement change processes</li> <li>• is capable of creative and innovative problem solving and decision making at one's work</li> <li>• is able to start profitable and customer-focused development projects</li> <li>• is able to guide and mentor others</li> </ul>
<i>Organisational and societal competence</i>	<ul style="list-style-type: none"> <li>• knows the socio-economic interdependence of the organisations in one's subject field</li> <li>• knows the possibilities of societal influencing for the development of one's field</li> </ul>	<ul style="list-style-type: none"> <li>• knows the socio-economic interdependence of the organisations in one's subject field</li> <li>• knows and is able to utilise the possibilities of societal influencing</li> </ul>

	<ul style="list-style-type: none"> <li>• knows the basic principles of organisational management and leadership and has abilities for supervision tasks</li> <li>• knows the methods of working life and is able to operate in work communities</li> <li>• is able to plan and organise activities</li> </ul>	<ul style="list-style-type: none"> <li>• knows the organisational and work cultures and is able to participate in intra-organisational and inter-organisational coordination, development and management</li> <li>• is able to evaluate the operations of a work community and to plan, organise and develop activities in the changing situations in working life</li> <li>• is able to perceive holistically wide entities and cause – effect relationships as well as to operate in demanding situations requiring versatile competences even when there are constraints of information</li> </ul>
<i>Internationalisation competence</i>	<ul style="list-style-type: none"> <li>• possesses spoken and written communicative competence at least in one foreign language necessary for one's work and for professional development</li> <li>• understands cultural differences and is able to work together with people coming from different cultural backgrounds</li> <li>• is able to use international sources of information of his/her own field</li> <li>• understands the effects and opportunities of internationalisation in one's own field</li> </ul>	<ul style="list-style-type: none"> <li>• possesses the written and spoken communicative competence in one or two foreign languages necessary for one's work and for professional development</li> <li>• understands cultural differences and is able to operate in diverse international environments</li> <li>• is able to apply international knowledge and competences in one's own field</li> <li>• possesses an overview of the position and importance of the profession in the international environment</li> </ul>

In addition, the following competences common to all are emphasised at Seinäjoki University of Applied Sciences:

*Entrepreneurship competence:*

- understands interaction between the operations of an enterprise and its business environment and adopts an entrepreneurial way of action
- understands the basics of profitable business operations and knows how to analyse the operations and risks of an enterprise

*Quality management competence:*

- the student knows the quality systems typical of the field
- the student understands the requirements of quality thinking and quality systems

## Degree programmes

A degree programme is defined as a course of studies which concentrates on a given area of professional expertise. The first-cycle degree programme studies lead to a Bachelor's degree in both day and adult education. The total number of undergraduate degree programmes in Seinäjoki University of Applied Sciences is 20. Those with a polytechnic Bachelor's degree followed at least 3 years of relevant work experience are offered the opportunity to complete a second-cycle degree.

### *Structure of the Bachelor-level degree programmes*

Studies leading to a Bachelor's degree are organised as degree programmes. A degree programme is an educational curriculum, which concentrates on a professional field and its development. A degree programme may include several specialisation lines.

Each degree programme includes basic studies, professional studies and practical training, thesis and maturity test. The studies consist of study modules and courses. A study module consists of two or more courses which focus on a particular subject or problem area. Courses are compulsory, alternative or elective. The degree programmes include a minimum of 12 credits of elective studies. The students have many opportunities to develop their skills by taking courses at the other faculties. The students can enrich their core knowledge provided by their educational fields by means of a personal curriculum. Naturally, the students have the wide international cooperation network of the University of Applied Sciences at their disposal. Studies in a foreign university provide the student with credits, too.

*Basic studies*

Basic studies give the student an overall picture of the degree programme and the field studied. The objective of basic studies is also to familiarise the student with the general theoretical basics of the field. Languages and communication skill studies also form an important part of the basic studies.

*Professional studies*

Professional studies deal with the essential problems and applications including their theoretical basis in the degree programme's professional field. Professional studies prepare the student for independent work in expert tasks of the field. Professional studies are compulsory, alternative or elective.

*Practical training*

Practical training is an essential part of the study programme. The objective is to introduce the student to the field and apply to practice the theoretical knowledge gained. An important part is to learn the practices and environments of working life. It widens students' working life connections and contacts with potential employers. Practical training is obligatory and equivalent to 30–75 credits depending on the degree programme.

*Thesis*

Thesis is a written work or project to show that the student has the required knowledge and skills to deal with the tasks connected with his/her professional field. It can be, for example, a study, survey or a R&D project, but it must be presented in the form of a written report. Thesis is equivalent to 15 credits. The maturity test taken at the final stage of the degree work demonstrates the student's knowledge of his or her field and skills in the mother tongue.

*Learning Methods*

One course may consist of lectures, literature, written assignments, laboratory work, projects, seminars, excursions, traditional homework and exams, the emphasis of which varies according to the objectives of the course.

*Eligibility conferred by polytechnic degrees*

The first cycle polytechnic degree (bachelor-level degree) confers eligibility for civil service posts and positions where the qualification requirement is higher education degree or lower academic degree.

The second cycle polytechnic degree (master-level degree) confers the same field-specific eligibility for civil service posts as a Master's degree completed at a university or another institution of higher education.

Finnish higher education degrees are equivalent to degrees taken at corresponding other European institutions of higher education.

*Online studies*

The aim of online studies is to offer all students alternative ways of completing courses. The objective is that all students would have an opportunity of conducting 30 credits of studies online.

The primary online learning environment is Moodle. Adobe Acrobat Connect Pro communication system software is also available. The system allows the student to participate in online lectures anytime and anywhere where there is access to the Internet.

Online courses of all Finnish universities of applied sciences are available at the portal of VirtuaaliAMK at <http://amk.fi>. Before starting studies at VirtuaaliAMK the student must agree on the courses and recognition with the Head of Programme or Student Counsellor. More information about online studies can be obtained from Asko Ojanperä, tel. +358 40 830 4278, [asko.ojanpera@seamk.fi](mailto:asko.ojanpera@seamk.fi).

**Study regulations**

The student is entitled to complete the studies leading to the polytechnic degree in a certain field of study according to the Degree Programme and its curriculum as well as the foundations defined in the Degree Regulations of University of Applied Sciences. The student's personal curriculum is based on the educational curriculum of the academic year the studies were begun. The educational curriculum is confirmed every academic year, which may cause changes in the supply of the study programme.

*Degree Regulations*

General regulations and guidelines according to the studies and degrees in the University of Applied Sciences are presented in the Degree Regulations, which is an important document for every student to be familiar with.

The Degree Regulations of Seinäjoki University of Applied Sciences can be found in intranet <http://intra.seamk.fi> -> Opiskelijapalvelut -> Tutkintosääntö ja pedagoginen strategia -> Tutkintosääntö 2009 (PDF)

### ***Study Entitlement***

The maximum duration of the studies of a full-time student must not exceed the duration of the programme by more than one year. A full-time student may register as non-attending for two semesters. This period of non-attendance is not counted in the maximum duration of the studies. A non-attending student has no right to carry on the studies and is not entitled financial aid to students either.

When it comes to losing the study entitlement, the instructions of the Act of Universities of Applied Sciences (351/2003) is observed. A student has to participate in the necessary working methods of the course to be able to achieve the aims of the curriculum. The working methods as well as the evaluation methods are announced at the beginning of each course.

### ***Registration for examinations***

An examination arranged at the end of a course does not require separate registration unless agreed otherwise. A student has to register bindingly for other examinations at the latest seven days before the examination.

By using their own consideration the faculties also arrange general examination days for retaking a failed course and/or for improving the grade of an approved course. The accurate dates of examination days are informed in the study guide of each faculty. Unfounded absence is regarded as an exploited opportunity to take the examination.

### ***Evaluation of study***

The assessment of studies is part of the learning process which is supposed to measure the attainment of the objectives of a course. Assessment is done through oral or written examinations, case exercises or other assessment methods. In addition to the assessment of knowledge (depending on curriculum) it may include the assessment of working methods and attitudes.

The assessment is mainly made by using the following numerical scale:

- excellent K(5), corresponding to grade A of the ECTS scale
- good H(4–3), corresponding to grades B and C of the ECTS scale
- fair T(2–1), corresponding to grades D and E of the ECTS scale
- fail (0) corresponding to grade F of the ECTS scale.

If necessary, the courses can be assessed by using the scale pass/fail.

Assessment is done within one month from the study attainment, unless agreed otherwise, and approved study attainments are written in the Study Records. A student is entitled to receive information on the assessment criteria of the study attainment. Study attainments are archived for six months after announcement of the results. A student not satisfied with the assessment can make an appeal to the teacher who administered the assessment and, if necessary, further to the Examination Committee of the University of Applied Sciences.

### ***Study Records at WinhaWille***

Through the student interface (WinhaWille) of the study management system Winha, a student may register as a student, to follow the advancement of the studies as well as to enrol for the elective subjects. To be able to use the student interface WinhaWille, a student needs a user identification as well as a pin code to log in the system. The pin codes are given by the Student Affairs Office of each faculty.

### ***Codes of Curricula***

In the supply of education in Seinäjoki University of Applied Sciences, each course has a code that follows a certain code system. Codes can be needed for example for enrolling a course. The use of the study management system Winha is based on these codes.

For instance code KH14AAIL80 includes the following information of the course:

- level of education: K = higher education
- educational unit: H = School of Culture and Design
- Degree Programme: 14 = Degree Programme in Design
- classification: A = basic studies
- curriculum: AIL80 = photography

### ***Degree Certificates***

Two months before graduation, a student must inform the student affairs office about his/her willingness to graduate and two weeks before the graduation date at the latest submit a written Degree Application. More detailed directions concerning the graduation, relevant forms and the graduating dates can be found on the intranet <http://intra.seamk.fi> ->Opiskelijapalvelut-> Lukuvuosi

The faculty gives a student the Degree Certificate for the degree completed. The Degree Certificate and its appendices show the courses completed and their extent as well as grades, language skills and the language of the Maturity Test.

On request, a student is entitled to receive an English translation of the Degree Certificate. An English–language Diploma Supplement is also given to every student. The Diploma Supplement includes the description of the Finnish educational system, the description of the student's own educational field and Degree Programme as well as a transcript of records in English.

During the studies, a student can receive on request an official transcript of records from the student affairs office of the faculty.

## Degree Programmes

### *Bachelor–level Degree Programme*

Agriculture and Rural Enterprises  
Automation Technology  
Business Management  
Conservation  
Construction Engineering  
Cultural Management  
Design  
Food Processing and Biotechnology  
Forestry  
Health Care and Social Services/Elderly Care  
Hospitality Management  
Information Technology  
International Business (English)  
Library and Information Services  
Mechanical and Production Engineering  
Nursing (both in Finnish and in English)  
Physiotherapy  
SME Business Management  
Social Work

### *Head of Degree Programme*

Juha Tiainen  
Hannu Reinilä  
Päivö Laine  
Outi Orhanen  
Heikki Ylihärstilä  
Jussi Kareinen  
Hannu Ruokonen  
Jarmo Alarinta  
Hannu Lassila  
Aila Vallejo Medina  
Liisa Nuotio  
Petteri Mäkelä  
Ritva Leppänen  
Pirkko Vuorela  
Jukka Pajula  
Raija Palo  
Riitta Kiili  
Anmari Viljamaa  
Päivi Rinne

The email addresses are forename.lastname@seamk.fi

## Admissions

There is a nation–wide joint application system for students applying for entry to Finnish universities of applied education/polytechnics. Degree programmes in foreign languages ([www.admissions.fi](http://www.admissions.fi)) and for adult education will also join the nation–wide joint application system. The Student Admissions Office operating in connection with the Student Affairs Office at Seinäjoki University of Applied Sciences takes care of admissions. Nearly all degree programmes arrange an admission test, to which the applicant is invited by mail. The final selection criteria are usually the results of the entrance examination, previous study record and grades, the student's own priorities for admission, work experience and often even preliminary exam in the field of Culture.

The general entry requirements for admission to universities of applied education/polytechnics are:

- general upper secondary school of matriculation examination
- International Baccalaureate–, Reiseprüfung– or European Baccalaureate –examination
- basic vocational qualification
- qualification of vocational upper secondary education
- combination studies of upper secondary education
- basic vocational qualification or joint studies in adult education
- or corresponding international or foreign qualification.

Detailed entry requirements are presented in the Act of Universities of Applied Sciences (351/2003, § 20).

Universities of applied sciences/polytechnics determine their principles of student selection and admission examinations independently, but they are committed to make a wide cooperation and to follow the general selection criteria in different fields of study. More accurate information about the entry requirements and selection criteria can be found in the annually published, national Admission Guide for Polytechnics as well as in the Applicant's Guide of each HEI.

**Acceptance of student place**

After accepting to study in Seinäjoki University of Applied Sciences student must enrol at the beginning of academic year. If the student does not enrol within the allotted time, he/she is considered to have given up his right to study in the school. The student's written notification of accepting the study place is always binding and cannot be withdrawn or modified.

**Registration as a student**

A student studying for the Degree of University of Applied Sciences has to register as a student every academic year during the time set by the University of Applied Sciences. Registration is done either through the student interface of the study management systems or in writing. Only a student registered as attending is entitled to study and receive completed courses in the record.

A new student who is starting studies has to register as a student at the same time he/she is notified the University of Applied Sciences of accepting the student place offered. Registration is done filling in a personal data form and for the whole academic year.

A student who has accepted a student place but postponed the start of the studies with a notification of absence, must register as a student the following year observing the same dates as the new students accepted into the degree programme in question.

A student continuing the studies has to register as a student for the whole academic year at a time between 15 April and 31 August.

The registration information may be changed during the period for registration (15 April to 31 August) or at the beginning of the spring semester (1 to 15 January).

## Legislation and decrees

In the student admission, planning and implementation of the training of the Degree Programmes, as well as upon the establishment of study entitlement, the following Acts and Decrees, as well as later amendments to them, are observed:

- Act on Universities of Applied Sciences (351/2003)
- Decree on Universities of Applied Sciences (352/2003)
- Act on the Student Admission Register and on the Matriculation Register (1058/1998, 547/2002)
- Decree on the Joint Application System of the Universities of Applied Sciences (353/2003)
- Decree on the Basis for the Collection of Fees for Tuition (354/2003)
- Decree on the Eligibility Produced by Certain Studies for Studies in Universities of Applied Sciences (355/2003)
- Administrative Procedure Act (434/2003)
- Personal Data Act (523/1999)
- Act on the Openness of Government Activities (621/1999)
- Study Grants Act (65/1994)
- Study Grants Decree (260/1994)
- Act on the Financing of Education and Culture (635/1998)
- Decree on the Financing of Education and Culture (806/1998)
- Decree on the System of Degrees of Higher Education (464/1998, 1132/2003, 426/2005)
- Regulations of Seinäjoki Joint Municipality of Education and Seinäjoki University of Applied Sciences

With a view to achieving a licence to practise, in the Degree Programme of Nursing, the Act and the Decree on Health-Care Professionals are observed (L559/1994, A564/1994) as well as the EU Directives 77/452/EEC, 77/453/EEC, 89/48/EEC, 89/594/EEC, 89/595/EEC and 92/51/EEC.

## ECTS – European Credit Transfer and Accumulation System

The purpose of the European Credit Transfer System, ECTS is to improve comparability of credits and grades between different educational systems. The recognition of studies and grades is a prerequisite for the free mobility of students. ECTS provides an instrument to evaluate the learning achievements of students through the use of commonly accepted measurements, and it also provides a basis for interpretation of national systems of higher education. Full academic recognition is necessary for student mobility in the framework of the Erasmus and Socrates programmes.

The ECTS is based on three core elements

- information on study programmes and student achievement
- mutual agreement between the partner institutions and the student
- ECTS credits to indicate student workload.

Credit transfer is implemented by means of three basic documents

- This Study Guide has been published to provide information on the degree structure and study programmes of Seinäjoki University of Applied Sciences. Potential partners, students and staff at partner institutions can use it as a guide to programmes, courses, and academic and administrative arrangements employed in the institutes of the University of Applied Sciences.
- The Student Application Form is filled in by the student when he intends to study at a foreign host institution. When the three parties involved – the student, the home institution and the host institution – agree about the study programme abroad, they sign a learning agreement attached to the application form. This agreement, which describes the scope of study abroad, must be signed before the student leaves for the host institution.
- Credit transfer in ECTS operates by means of exchange of transcript of record between home and host institutions.

ECTS credits are a numerical value allocated to course to describe the student workload. They reflect the total quantity of work including lectures, seminars, tutorials, private study, examinations etc., and are not limited to contact hours only.

The workload for an academic year carries 60 credits.

In Seinäjoki University of Applied Sciences like in other Finnish Universities of Applied Sciences, the Finnish grading scale is used:

- 5 Excellent
- 4 Good
- 3 Good
- 2 Satisfactory
- 1 Satisfactory
- 0 Failed

The field-specific distribution tables of grades for the purposes of conversion of grades are being created.

### ***Diploma Supplement***

The Diploma Supplement is a document that provides a standardised description of the nature, level, context, content and status of the studies completed at the polytechnic. The Diploma Supplement, which is based on a European template, is attached to the degree certificate. It also contains an overview of the educational system in Finland. The purpose of the Diploma Supplement is to enhance transparency and to facilitate academic and professional recognition of qualifications. All students who complete a degree at Seinäjoki University of Applied Sciences obtain a Diploma Supplement automatically and free of charge on their graduation.

### ***ECTS coordinators at Seinäjoki University of Applied Sciences***

Seinäjoki University of Applied Sciences has appointed an institutional co-ordinator and departmental ECTS coordinators for each faculty. The task of the institutional co-ordinator is to promote ECTS within the University of Applied Sciences and outside, to facilitate the practical implementation of ECTS and provide support to departmental co-ordinators. The departmental co-ordinator is the contact person of students and teachers within the faculty and deals with the practical aspects of the implementation of ECTS. Departmental co-ordinators are in charge of documenting and counselling, as well as communication between home and host institutions.

#### ***Institutional coordinators:***

Päivö Laine  
Head of Programme, PhD  
Seinäjoki University of Applied Sciences, Business School  
Koulukatu 41, FI-60100 Seinäjoki  
tel. +358 20 124 5409, fax +358 20 124 5401  
email paivo.laine@seamk.fi

and

Helli Kitinoja  
Manager of International Affairs  
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Tel. +358 20 124 5004, fax +358 20 124 5001  
email helli.kitinoja@seamk.fi

#### ***Departmental coordinators:***

The departmental ECTS coordinators are the international coordinators of the educational units. Please turn to them for further information on ECTS practices and forms.



# Degree Programme in Agriculture and Rural Enterprises (In Finnish)

## SPECIALISATIONS

Students can specialise in pig husbandry, potato production, rural environments, water management, environmental engineering, management of rural enterprises (farms) and production design, rural development, and the health care of domestic animals. These are just a few of the available areas in which students can enhance their expertise.

## QUALIFICATION AWARDED

Bachelor of Natural Resources

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The constructivist theory of learning emphasises the active role of students and their own experiences in their education, which helps them to understand what is being taught. The teacher acts as facilitator of the learning process.

Characteristics of learning:

1. Students set their own learning objectives, e.g. Personal Study Plan.
2. The information to be learned is connected to students' world of experiences, work and working environment.
3. Open communication between the students and teacher is nurtured to deepen the understanding of the information to be learned and to evaluate learning experiences.
4. The process of learning is emphasised in the studies, not merely objectives and contents.
5. Together with the teachers, students monitor and evaluate their own learning and the learning of their peers. Learning is systematically developed based on feedback. The feedback is discussed together with the students, and they lead the development of the learning situations.

Teaching involves the use of various topic-related, applied methods. The variety of teaching methods is used in the programmes to support students' professional development, readiness for the working world and professional expertise. Students attend lectures, engage in independent information acquisition, work in projects, work online, do practical assignments and exercises, and participate in co-operative learning.

## PROFILE OF THE PROGRAMME

Studies in the degree programme involve lectures, independent study, practical training and a final thesis. At the beginning of their studies, students make a Personal Study Plan with the assistance of a student counsellor or tutor. Students then progress in their studies according to the objectives in the plan.

Contact teaching is a combination of theory and diverse practical studies. Studying in the programme is flexible, and students can concentrate on courses most interesting to them. The seasons and periods of growth and harvest in the fields and forests, as well as the reproduction cycles of the farm animals set the pace for studying in the degree programme. In addition to classroom lessons, students do practical work and exercises on a weekly basis, especially during their first year of study. Modern facilities for farm animals, laboratory work and teaching and the school farm enable students to engage in hands-on, problem-based, reflective learning.

In addition to the Basic Studies, other courses involve the study of plant production, livestock husbandry, forestry, and courses pertaining to technology, agricultural economics, business economics, consultation, biology and environmental protection. The practical training consists of training on a farm and specialisation training in Finland or abroad. Students do a final thesis at the end of their studies. The faculty has been very flexible as regards the types of topics chosen for theses. However, students should consider the advantages of their chosen topic in obtaining work and in their future career. Immense co-operation between the various faculties in the university of applied sciences ensures that students have the opportunity to choose from an extensive, diverse selection of courses. At the end of their studies, students are required to write a final thesis.

Students partake in period of fieldwork during the summer after their second year of study. It takes place at the beginning of the summer and at the end. During this time, students put the theory they have learned in the classroom over the winter into practice. Students have usually made a field trip to Central Europe during the summer, which gives them a breath of the farming culture in other countries.

### *Beginning the studies*

Students begin their studies in the Degree Programme in Agriculture and Rural Enterprises with a two-day orientation in

which the structure and the practices followed in the programme are presented. Students are introduced to their tutors and other new students. The tutors assist new students during their first few weeks of study. Each new student is assigned a personal tutor, although naturally all of the tutors are there to extend their help.

Contact teaching primarily takes place Monday to Friday between 8 am and 4:15 pm. One weekend during the first autumn semester students take part in work on a pig farm. The first year of study begins with a practical training period on the school farm in Ilmajoki. The practical training consists of harvest work and caring for livestock. Students who have completed basic studies in agriculture do not participate in the 5-week training period.

### ***General studies and practices***

During their first and second years of study, students study basic and field-related subjects that are common to all students. These general subjects include computer technology, language studies, mathematics, biology and environmental protection, plant production and livestock husbandry, economics, forestry and subjects in technology.

The summer after students' first year of study is also a time of practical training on a farm. It begins at the beginning of May and ends at the end of September. At this time, students gain knowledge of the type of work carried out on a farm. There are numerous farms around Finland where students may do their practical training. They may also do it abroad.

The second year of study begins at the beginning of October and ends at the end of April. During this time, students study the subjects they have chosen in their Personal Study Plan. For the most part, students partake in field-specific courses during the second year of study. They may also choose 15 credits of elective studies from the range of courses in the entire university. One credit is equivalent to 26 hours of student work. The 15 credits may include courses offered by other universities of applied sciences or academic universities.

Students partake in period of fieldwork (referred to as "Growth Season") during the summer after their second year of study. It takes place at the beginning of the summer and at the end. During this time, they put the theory they have learned in the classroom over the winter into practice. Students have usually made a field trip to Central Europe during the summer. The trip familiarises students with the agriculture and culture of other countries. Students are required to pay for the trip themselves and therefore they have usually gathered the funds together through various events and jobs during the winter.

Taking part in the trip is not compulsory.

### ***Specialisation***

During the third year of their studies, students focus on their line of specialisation, which amounts to 50 credits. Students may choose more extensive study modules and individual courses. They have the opportunity to specialise in pig husbandry, potato production, rural environments, water management, environmental engineering, management of rural enterprises (farms) and production design, rural development, and the health care of domestic animals. These are just a few of the available areas in which students can enhance their expertise.

Students put their specialised skills to use during the summer after their third year of study when they partake in specialised practical training. The training lasts 75 days and takes place between May and August. Students enquire about the place where they can do the training either independently or with the help of a training supervisor. When choosing the place to do their specialised practical training, students should consider their career plans and placement in the working world. Oftentimes, the specialised practical training spawns an idea or commission for a student's thesis, which they do at the end of their studies.

The extent of the thesis is 15 credits. During the thesis writing process, students exhibit their knowledge of their profession through the research of a chosen topic. The faculty has been fairly flexible as regards the topics chosen for theses; however, students should consider the long-term advantages in their career and employment when choosing a topic.

## **KEY LEARNING OUTCOMES**

### ***Agriculture and forestry***

Students have a comprehensive understanding of farming as a whole, how farms operate and the work involved in maintaining a farm. They are competent in appropriately cultivating fields to yield profit and in feeding and breeding farm animals with consideration to their health and well-being. They know how to efficiently and safely use machinery needed in farming and to manage and utilise forests in an economical and ecological sustainable way.

### ***Rural environments***

Students are familiar with the rural networks and are able to function in those networks. They have knowledge of national and international rural policies and are aware of their impacts on the operations and development of regions, rural areas and agriculture.

### ***Business and entrepreneurship***

Students have knowledge of the principles of entrepreneurship and the areas of business. They are competent in systematically managing and developing rural enterprises in a financially profitable way.

## OCCUPATIONAL PROFILES

Agronomists typically work as consultants for livestock husbandry and plant production, as specialists in administration, education or research, and as rural developers. Developing agricultural enterprises requires professionals with a university of applied sciences degree; indeed, many agronomists run their own enterprise. There is a diverse range of job opportunities for agronomists and they find work easily.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in natural resources. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at MAELINK 2009, 240 cr (1.9.2009)

The degree programme in Agriculture and Rural Enterprises (240 cr) comprises basic and professional studies (120 cr), specialisation studies (40 cr), elective studies (15 cr), practical training (50 cr) and a final thesis (15 cr). Each of these parts of the programme is divided into modules and courses. The recommended time to complete the programme is four years.

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of degree programme: Mr Juha Tiainen, tel. +358 40 830 2429, juha.tiainen@seamk.fi

ECTS departmental coordinator / International coordinator: Mr Heikki Koskimies, tel. +358 20 124 5755, e-mail: heikki.koskimies@seamk.fi

Student counsellor: Ms Anu Katila, tel. +358 20 124 5747, anu.katila@seamk.fi

## Degree Programme in Agriculture and Rural Enterprises (In Finnish) (1.9.2009) MAELINK 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KA01AYP	<b>BASIC STUDIES</b>					<b>42</b>
KA01ATYKA	<b>Life-long learning in the working life</b>					<b>12</b>
KA01ATYKA01	Studying at polytechnic	x				4
KA01ATYKA02	Physical education		x			3
KA01ATYKA03	MeetingsŽ technology and Psychology at Work		x			3
KA01ATYKAKO	<i>MeetingsŽ technology</i>					1.5
KA01ATYKATY	<i>Psychology at Work</i>					1.5
KA01ATYKA04	Basic readiness of Working Life			x		2
KA01AVIVA	<b>Communicational Skills</b>					<b>12</b>
KA01AVIVA01	Basics of Communication and Negotiation		x			3
KA01AVIKIRJ	<i>Written communication</i>					1
KA01AVIYHT	<i>nn</i>					2
KA01AVIVA02	Swedish	x				3
KA01AVIVA03	English		x			3
KA01AVIVA04	Information technology	x				3

KA01AMTLU	<b>Mathematics and natural sciences</b>						<b>6</b>
KA01AMTLU01	Mathematics	x					3
KA01AMTLU02	Physics and chemistry	x					3
KA01ATUKE	<b>Research and Development Skills</b>						<b>12</b>
KA01ATUKE01	Basics of applied research and documentation			x			3
KA01ATUKE02	Acquisition of information			x			3
KA01ATUKE03	Statistical Deduction			x			3
KA01ATUKE04	Basics of rural extension and project work		x				3
KA01BYA	<b>COMMON PROFESSIONAL STUDIES</b>						<b>73</b>
KA01BKATU	<b>Crop production</b>						<b>15</b>
KA01BKATU01	Plant biology and orientation to plant production	x					3
KA01BKATU02	Soils and meteorology	x					3
KA01BKATU03	Fertilization and soil cultivation	x					3
KA01BKATU04	Field crop production		x				3
KA01BKATU05	Basic course in weed science		x				3
KA01BKOTU	<b>Animal husbandry</b>						<b>9</b>
KA01BKOTU01	Basics of Chemistry and biology in Animal Husbandry	x					3
KA01BKOTU02	Basic Practical Skills in Animal Husbandry	x					6
KA01BYMME	<b>The basics of environmental know-how and Forestry</b>						<b>9</b>
KA01BYMME01	Silviculture	x					3
KA01BYMME02	Forest management		x				3
KA01BYMME03	Basic environmental know-how		x				3
KA01BTERA	<b>Agrotechnology</b>						<b>12</b>
KA01BTERA01	Use and maintenance of farming machines	x					3
KA01BTERA02	Fundamentals of agricultural technology		x				6
KA01BTERA03	Contracting	x					3
KA01BEKO	<b>Agricultural economics</b>						<b>9</b>
KA01BEKO01	Basic principles of farm economics	x					6
KA01BEKO02	Agricultural taxation		x				3
KA01BYRLI	<b>Entrepreneurship and basics of agrobusiness</b>						<b>9</b>
KA01BYRLI01	Introduction to marketing	x					3
KA01BYRLI02	New venture strategies in rural small business		x				3
KA01BYRLI03	Introduction to bookkeeping		x				3
KA01BKASVU	<b>THE GROWING SEASON</b>						<b>10</b>
KA01CSV	<b>ADVANCED STUDIES</b>						<b>40</b>
KA01CLITO	<b>Agrobusiness</b>						<b>40</b>
KA01CLITO01	Investments and financing			x			9
KA01CLITO02	Marketing				x		5
KA01CLITO03	Management of agrobusiness– corporation			x			5
KA01CLITO04	Business Planning of Agrobusiness– Corporation			x			10
KA01CLITO05	Agricultural policy				x		5
KA01CLITO06	Production economics in Agriculture			x			6
KA01CLITO07	Cost accounting and pricing				x		6

KA01CLITO08	Business Law				x	6
KA01CLITO09	Planning of Business			x		6
KA01CLITO10	Substance– orientated know–how			x		3
KA01CKOTU	<b>Animal Husbandry and welfare of production animals</b>					<b>40</b>
KA01CKOTU01	Specialising in pig production				x	6
KA01CKOTU02	Specialising in cattle production			x		12
KA01CKOTU03	Specialising in poultry production				x	6
KA01CKOTU04	Automation in Animal Husbandry			x		3
KA01CKOTU05	Computer–aided planning of farm economics				x	6
KA01CKOTU06	Maintaining animal health			x		9
KA01CKOTU07	Applied microbiology			x		2
KA01CKOTU08	Animal diseases				x	3
KA01CKOTU09	Use of medicines in veterinary				x	3
KA01CKOTU10	Planning and management of health care				x	3
KA01CKOTU11	Other special topics of animal production				x	3
KA01CKOTU12	Horse and stable management				x	2
KA01CKATE	<b>Crop production and agro technology</b>					<b>40</b>
KA01CKATE01	Field drainage and irrigation			x		3
KA01CKATE02	Diseases and pests of cultivated plants			x		3
KA01CKATE04	Planning of crop			x		3
KA01CKATE05	Grassland management			x		3
KA01CKATE06	Technology of Plant Production			x		6
KA01CKATE07	Energy–balance of Farm			x		3
KA01CKATE08	Planning of agrobusiness (a virtual course)				x	6
KA01CKATE09	Special crops			x		3
KA01CKATE10	Potato production			x		3
KA01CKATE11	Crop yield in plant production			x		3
KA01CKATE12	Organic farming			x		3
KA01CKATE13	Vegetable and Berry Production				x	3
KA01CKATE14	Nutrient balance in plant production				x	3
KA01CKATE15	Bioenergy				x	5
KA01CKATE16	AgroAutomation in Plant Production				x	5
KA01CELTU	<b>FoodStaff –industries</b>					<b>40</b>
KA01CVAL	<b>Optional Professional Studies</b>					<b>5</b>
KA01CVAL01	Swedish for polytechnic studies	x				3
KA01CVAL02	English for polytechnic studies	x				3
KA01CVAL03	Introduction to mathematics	x				3
KA01CVAL04	English conversation			x		3
KA01CVAL05	Organic animal husbandry			x		3
KA01CVAL06	Ecological plant husbandry				x	3
KA01CVAL07	Animal husbandry special practicals				x	2
KA01CVAL08	PC–based taxation planning				x	2
KA01CVAL09	From order to delivery				x	3

KA01DEKON10	Marketing of farm products and supplies					2
KA01CLII014	Master Assistant training					3
KA01CYMP	Environment and rural enterprises					32
KA01DVVO	FREE CHOICE STUDIES					15
KA01EH	PRACTICAL TRAINING					50
KA01EMHARJ	Farming practice					30
KA01EEHARJ	Specialisation practice					20
KA01FOPNÄYT	FINAL THESIS					15

## Study Descriptions

### BASIC STUDIES, 42 op KA01AYP (study entity)

During the Common Basic Studies, students acquire and develop a 'learning toolbox', which comprises communicative, mathematical and social skills. Students learn to know themselves better and to take care of themselves, both physically and mentally.

### Life-long learning in the working life, 12 op KA01ATYKA (study entity)

The course Developing Skills as a Professional comprises four different parts and the completion of several different assignments in each part. The first part familiarises students with the studies at the university of applied sciences and occupational safety through various exercises and training in the working world. The second part involves health and wellbeing. In the third part, students learning about holding meetings/negotiations and about occupational psychology. The fourth part, which takes part at the end of students' studies, involves learning how to function as a supervisor and a subordinate and planning one's career.

### Studying at polytechnic, 4 op KA01ATYKA01 (study unit)

#### Lecturers

- Anu Katila
- Jaana Petäinen
- Tutor teachers and students
- Guest speakers

#### Objectives

Increase in self-awareness, planning of studies, follow-up and support. Students will have command of various learning techniques and tools needed in time management. They will acquire readiness for professional growth and awareness of basic psychological functions and the general modes of behaviour. The student knows the agricultural sector safety factors, labor protection administration and to adopt a positive attitude to health development.

#### Content

Part 1: Studying at universities of applied sciences, orientation into Seinäjoki University of Applied Sciences and studies in agriculture, reinforcing self-awareness and the defining of professional goals, career planning, compiling a personal study plan, preparation for the working world and coping at work. Part 2: Psychology: Psychology as a science, e.g. the development of the individual in social interaction, the functions of feeling, will, and thought (emotion, motivation, cognition), learning, mental health, etc. Part 3: management and labor organization operating at the workplace and rural businesses. Occupational safety risk mapping of the workplace, and safe practices

#### Literature / Study Material

Material as indicated by the university and lecturer.

#### Learning Methods

Written assignments, group discussions, presentations, lectures. Contact teaching and supervision: 30 %, assignments: 10 %, independent study: 60 %. Occupational health and safety

- Lectures: 40 %
- Assignments: 30 %

- Independent study: 30 %

#### *Assessment*

Active participation in contact teaching and supervision sessions, completion of written assignments, exam. All parts must be completed successfully to receive a grade for the course.

#### *Languages of Instruction*

Finnish

### **Physical education, 3 op KA01ATYKA02 (study unit)**

#### *Lecturers*

Liisa Lähdesmäki, LSc (Health Education)

#### *Objectives*

The aim of the course is to improve students' health and well-being through various forms of exercise and to acquire an attitude and state of mind that emphasises active living. Students will learn to maintain their ability to work and function as a part of their professional skills.

#### *Content*

- Exercise as a way to maintain the ability to work, function, health and well-being
- Types of fitness exercise and engaging in such exercise as the seasons allow
- Compilation of an exercise scheme, implementation and evaluation based on condition
- Ergonomics
- Relaxation

#### *Literature / Study Material*

- Ruuskanen E (ed.). 2002. Terveysliikunnan opas: Tehokas ja turvallinen terveystoiminta. UKK Institute: Tampere.
- Delavier F. 2006. Lihaskuntoharjoittelun perusteet. VK-kustannus.
- Material distributed by the lecturer

#### *Learning Methods*

- Supervised assignments
- Working independently, in pairs and in groups

#### *Assessment*

- Active participation in lectures, working independently and in groups (70 %)
- Approved assignment (30 %)

#### *Further Information*

Liisa Lähdesmäki

### **MeetingsŽ technology and Psychology at Work, 3 op KA01ATYKA03 (study unit)**

#### *Lecturers*

- Anu Lounatvuori, MA
- Juhani Suojäranta, agronomist

#### *Objectives*

Students will be competent in leading various meetings and negotiations and be familiar with the requirements of various duties involved in meetings and negotiations. They will also be familiar with how associations and organisations function. Students will learn about psychology as a science. They will learn to observe various phenomena from a psychological point of view and know how to apply their knowledge into practice. NB: Students who have completed studies in psychology in upper secondary school may receive credit for the previous courses they have taken.

#### *Content*

- How associations and organisations function
- Duties of meeting delegates
- Addressing members, voting, elections

- Goals and tactics of negotiations
- Interaction in negotiations
- Follow-up

Other topics discussed in the course include the development of the individual in situations of social interaction, considering the feelings, will and thoughts of individuals (emotion, motivation, cognition), learning, mental health, etc.

#### *Literature / Study Material*

Material distributed by the lecturer.

#### *Learning Methods*

- Lectures (60 %)
- Distance learning and independent study (40 %)

#### *Assessment*

- Lectures
- Assignments
- Exam

## **Basic readiness of Working Life, 2 op KA01ATYKA04 (study unit)**

#### *Lecturers*

- Anu Katila
- Erkki Laitila

#### *Objectives*

The objectives in the course include reinforcing students' self-esteem, preparing students for the working world, and teaching them ways of coping in the working world. Students will acquire understanding of the individual as a functional being and grow as professionals.

#### *Content*

- Part 1: Readiness to function as a superior, principles of working as a superior and a subordinate
- Part 2: Career planning, applying for a job, readiness for the working world

#### *Literature / Study Material*

Material as indicated by the lecturer.

#### *Learning Methods*

Students study independently in the Moodle online environment in the part of the course involving career planning.

#### *Assessment*

- Completion of exercises and assignments
- Participation in online discussions

Both parts of the course must be completed and approved to receive a grade for the course.

#### *Further Information*

- Basic Skills needed in the Working World: 2 cr during the second and third year of studies
- Skills to Function as a Supervisor: 1 cr during the second year of studies
- Career Planning: 1 cr during the third year of studies

## **Communicational Skills, 12 op KA01AVIVA (study entity)**

The aims of the studies in communication are to develop and diversify students' skills in written and oral communication using modern information technology. Students will become familiar with the significance of communication as a part of the activities in a work community, and they will be competent in communicating in many ways.



## **Basics of Communication and Negotiation, 3 op KA01AVIVA01 (study unit)**

### *Lecturers*

- Anu Lounatvuori, MA
- Other lecturer to be announced

### *Objectives*

The purpose of the course is to improve and diversify students' written skills in the Finnish language. Students will practice expressing themselves in writing and learn the norms for writing. They will become familiar with the academic texts and how to write them. They will be competent in planning and producing various types of texts for their studies, the working world and for expressing themselves. Students will also develop and diversify their skills in corporate communication. They will be familiar with the significance of communication as part of the activities in a work community. Students will learn how to give presentations and participate in the university's internal and external communication.

### *Content*

- Process writing
- Style
- Types of texts
- Documents
- Citation
- Using sources of information
- Significance of corporate communication
- Writing a newspaper article (Imolaanen)
- Oral presentations
- Marketing (school visit)
- Verbal communication

### *Literature / Study Material*

- Repo I. & Nuutinen T. 2003. Viestintätaito. Otava
- Material as indicated by the lecturer
- Other material distributed in the lessons

### *Learning Methods*

- Lessons: 60 %
- Assignments and independent study: 40 %

### *Assessment*

- Lectures
- Approved assignments (portfolio)

## **Swedish, 3 op KA01AVIVA02 (study unit)**

### *Lecturers*

Merja Lindholm

### *Objectives*

Students will be competent in communication in Swedish both verbally and in writing, and they will be able to acquire and utilise field-related information in the Swedish language. Students will possess a positive attitude toward learning and have a realistic understanding of their skills in Swedish. Upon completion of the course, students will be able to tell about themselves, the type of education they have, and their work experience. They will be able to apply for a job in Swedish and to describe their work environment and surrounding society. Students will be competent in communicating in a customer-oriented way and be familiar with the terminology relating to their professional field.

### *Content*

- Telling about oneself and one's education
- Applying for a job, interviews and making a CV
- Describing one's work environment and duties
- Describing work-related activities
- Small talk, telephone conversations, meetings, expressing one's opinion and arguing one's opinion

- Written communication: e-mails, summaries, reports, bulletins
- Field-related terminology

#### *Literature / Study Material*

Material distributed by the lecturer.

#### *Learning Methods*

- Verbal and written exercises such as dialogues, group discussions and presentations
- Written assignments
- Lessons: 50 %
- Independent study: 50 %

#### *Assessment*

- Active participation in lessons
- Active practice of oral skills (oral presentations and dialogue exercises)
- Completion of written assignments
- Exams

All parts of the course must be successfully completed to receive a final grade.

#### *Prerequisites*

Students must have command of the basic structures of Swedish, which will be tested before the course begins. Students who complete the test successfully will be entered into the course. Students who do not pass the test are required to take the Swedish Revision course.

#### *Languages of Instruction*

Swedish

## **English, 3 op KA01AVIVA03 (study unit)**

#### *Lecturers*

John Pearce

#### *Objectives*

Students will be competent in communicating with others using the English language verbally and in writing in issues pertaining to their own professional field, their education and leisure time.

#### *Content*

- Telling about oneself and one's education
- Applying for a job, interviews and making a CV
- Describing one's work environment and duties
- Describing farm work and work in rural areas and understanding related texts
- Discussions and other verbal exercises
- Written communication, e.g. summaries and reports
- Terminology related to farming

#### *Literature / Study Material*

- Yates. 1995. Agriculture. Phoenix.
- Håska. 198?. English for you in Agriculture, Forestry and Horticulture. LTS Förlag.
- Promentor 5: computer programme for learning languages
- Material distributed by the lecturer

#### *Learning Methods*

- Written and oral exercises such as dialogues, group discussions and presentations
- Written assignments
- Independent study
- Computer work
- Contact teaching: 50 %
- Independent study: 50 %

### *Assessment*

- Active participation in lessons
  - Active practice of oral skills
  - Completion of written assignments
  - Word tests
  - Exams
- Continuous evaluation; all parts of the course must be successfully completed to receive a final grade.

### *Prerequisites*

Students must have command of the basic structures of English, which will be tested before the course begins. Students who complete the test successfully will be entered into the course. Students who do not pass the test are required to take the English Revision course.

## **Information technology, 3 op KA01AVIVA04 (study unit)**

### *Lecturers*

Agrologist Marja-Liisa Mäntylä, MA

### *Objectives*

Students will gain command of the common computer programmes: word processing, spreadsheets, graphics and databases. In addition, they will be introduced to computer equipment and operating systems.

### *Content*

- Individual and shared used of computer tools programmes
- Computer equipment and peripheral devices
- Basic functions of operating systems

### *Literature / Study Material*

- Hyppönen A., Ojala A. & Joutsu J. 2007. Tietokoneen käyttötaito 1 – Office 2007 –ohjelmille, Docendo.
- Lammi O. 2007. Tietokoneen käyttötaito 2 – Office 2007 –ohjelmille. Docendo.
- Lecturer's material in the Moodle learning environment
- Other material distributed by the lecturer

### *Learning Methods*

- Lectures
- Guided exercises
- Independent assignments
- Approved exam (alternative for completing the course)

### *Assessment*

- Active participation in lessons
- Guided exercises
- Approved independent assignments

All parts of the course must be successfully completed to receive a final grade.

### *Languages of Instruction*

Finnish

## **Mathematics and natural sciences, 6 op KA01AMTLU (study entity)**

The Mathematics and Sciences course provides agrologists with the tools they need to solve problems in their work. It also prepares them for their other studies.

## **Mathematics, 3 op KA01AMTLU01 (study unit)**

### *Lecturers*

Sarita Ventelä, MSc

*Objectives*

The purpose of the course is to advance students' mathematical skills. Upon completion of the course, students will be competent in converting mathematical word problems into equations and in solving them algebraically and graphically. Students will know how to calculate plane figures, problems in solid geometry, area and volume.

*Content*

- Polynomes
- Proportions and comparisons
- Equations and equations in problem-solving
- Percentages
- Trigonometric functions
- Area and volume of plane figures

*Literature / Study Material*

- Aunola H. ym. Pythagoras 1, Tekniikan Ammattimatematiikka. EDITA.
- Material distributed by the lecturer

*Learning Methods*

- Lectures and assignments
- Approved midterm exams (2)
- Contact teaching: 60 %.

NB: Students may also complete the course by taking a test given at the beginning of the course. Fifty per cent of the test must be passed to receive full credit for the course.

*Assessment*

Written examination

*Prerequisites*

Students must have command of the basics in mathematics, which will be tested at the beginning of the course. Fifty per cent of the test must be passed to receive full credit for the course. Students who have successfully completed the test will be entered into the course. Students who have not passed the test are required to take the Basics in Mathematics course.

## **Physics and chemistry, 3 op KA01AMTLU02 (study unit)**

*Lecturers*

- Ville Vauhkonen, MSc (Physics)
- Sarita Ventelä, MSc (Chemistry)

*Objectives*

Students will acquire basic knowledge of chemistry to use in their other subjects. They will participate in laboratory work, learning about the use of laboratory instruments and other equipment. They will take soil samples and determine the amount of phosphate in the soil and its pH value. Students will be competent in analysing, evaluating and reporting their results.

*Content*

- General and inorganic chemistry: structure of a substance, chemical binding, chemical reaction, acids and alkalies
- Organic chemistry: basic terminology, structural formulas, hydrocarbons, alcohols, carboxylic acids, aldehydes, ketones, and esters
- Lab work: 3 x 3 h

*Literature / Study Material*

- Arvonen A. & Levonen H. 1999 (or kater). Ammattikorkeakoulun kemia. Otava.
- Other material distributed during lectures

*Learning Methods*

- Lectures

- Assignments
- Independent study
- Contact teaching: 70 %

#### *Assessment*

- Final exam
- Assignments
- Lab work + report (pass/fail)

### **Research and Development Skills, 12 op KA01ATUKE (study entity)**

Research and development This module develops students' study habits and project-based learning by familiarising them with ways modern experts work and their attitudes. The module also prepares students for their thesis writing process. It involves the study of the theoretical foundations of research and development, acquiring information, processing information and reporting. Contents

- Academic work and writing: 3 cr
- Acquiring field-related information and the research process: 3 cr
- Statistical reasoning: 3 cr
- Consultation and development in rural areas: 3 cr

### **Basics of applied research and documentation, 3 op KA01ATUKE01 (study unit)**

#### *Lecturers*

- Anu Lounatvuori, MA
- Samu Palander, PhD

#### *Objectives*

Students will acquire a problem-solving approach to their work and become familiar with the research and thesis process as well as with the principles for writing academic texts. They will be competent in applying their knowledge to their thesis work. Students will be familiar with the nature of the process of writing and the phases involved in it and know how to edit the text they have written.

#### *Content*

- Nature and phases involved in the research process
- Style of writing a thesis
- Using various sources of information and citation
- Requirements of academic texts
- Significance of linguistic know-how
- Instructions for Writing a Thesis

#### *Literature / Study Material*

- Hirsjärvi S., Remes P. & Sajavaara P. 2000. Tutki ja kirjoita. Helsinki: Tammi.
- Iisa K., Oittinen H. & Piehl A. 2002. Kielenhuollon käsikirja. Helsinki: Yrityskirjat

#### *Learning Methods*

- Lectures
- Assignments
- Independent study
- Contact teaching: 50 %

#### *Assessment*

- Assignments
- Language test

## **Acquisition of information, 3 op KA01ATUKE02 (study unit)**

### *Lecturers*

Anu Latva-Reinikka, BBA, BSc (Agr.)

### *Objectives*

Upon completion of the course, students will understand the entire process of acquiring information to assist them in determining their need for information, in selecting appropriate sources of information, in acquiring the basic techniques for obtaining information, and in evaluating and using the information they have found

### *Content*

- Field-related information and producers of information
- Databases and how to use them
- Online information acquisition
- Evaluating and using information

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Grading based on the assignments: pass/fail

### *Languages of Instruction*

Finnish

### *Further Information*

3 credits for Research and Development

## **Statistical Deduction, 3 op KA01ATUKE03 (study unit)**

### *Lecturers*

Ville Vauhkonen, MA

### *Objectives*

Students will be competent in presenting material in an appropriate form, calculating necessary parameters, and in analysing and explaining the interdependency of two linear variables.

### *Content*

SPSS for Windows as a tool for statistical analysis

### *Literature / Study Material*

Material distributed during the lectures.

### *Learning Methods*

- Lectures
- Assignment
- Independent study
- Contact teaching: 50 %

### *Assessment*

Assessment is based on the given assignment.

### *Prerequisites*

Mathematics (KA01AMTLU01)

### *Further Information*

One credit toward Research and Development

## **Basics of rural extension and project work, 3 op KA01ATUKE04 (study unit)**

### *Lecturers*

Agrologist Juhani Suojaranta

### *Objectives*

Students will be familiar with various types of rural areas and understand those areas as places to live and acquire livelihood. They will understand rural policies and the principles of rural development. Students will also be familiar with organisations involved in providing consultation on issues pertaining to rural areas and rural development, as well as with how such organisations work. Students will understand the various modes and procedures of consultation and know how to assess consultation work.

### *Content*

- Types of rural areas and the countryside as a place to live and acquire livelihood
- Scheme-based rural development and principles of rural policies
- Organisations carrying out consultation and development in rural areas
- Various modes and procedures of consultation as well as clientele
- Evaluating consultation work

### *Literature / Study Material*

Material distributed during lectures.

### *Learning Methods*

- Contact teaching: 50 %
- Assignments and familiarisation with field-related development work: 20 %
- Independent study: 30 %

### *Assessment*

- Active participation in lectures and field trips
- Exam

## **COMMON PROFESSIONAL STUDIES, 73 op KA01BYA (study entity)**

General Professional Studies provides students with the basic knowledge and skills they need as agrologists. Upon completion of the studies, students will be familiar with farming and the work associated with it. They will know how to cultivate fields in an appropriate way and to take care of the health and well-being of farm animals. Students will be competent in using farm equipment and machinery safely, and understand how to use the forest in a sustainable way. They will be familiar with rural networks and know how to work within them, rural policy, rural entrepreneurship and areas of business. Students will be aware of the impact their activities have on the environment as well as the interaction between a rural enterprise and the environment. The General Professional Studies take place during the first and second years of study.

## **Crop production, 15 op KA01BKATU (study entity)**

Extent: 15 cr, which comprise the following courses: Plant Biology and Orientation into Plant Production (3 cr), Soil and Meteorology (3 cr), Fertilisation and Soil Preparation (3 cr), Cultivating Field Crops (3 cr), Basics in Plant Protection (3 cr). Objectives: The aim of the studies in Plant Production is to teach students basic plant biology, the impacts of soil properties and climate on the growth and well-being of plants, as well as the more common cultivation techniques.

## **Plant biology and orientation to plant production, 3 op KA01BKATU01 (study unit)**

### *Lecturers*

- Leena Riikonen, MSc
- Horticulturist Senja Arkko

### *Objectives*

Students will have an understanding of the plant system and know the structure of the cells and cell tissue of plants as well as their life cycle. They will be familiar with the physiology, development and reproduction of plants. Students will identify the more common weeds and forest plants. They will also become familiar with the cultivation techniques of the

more common field crops and the equipment needed to cultivate crops, as well as with the school's farm.

### *Content*

- Plant systems
- Plant anatomy
- Plant physiology: water, nutrients, energy
- Reproduction of plants
- Familiarisation with various plants
- Crop production on the school's farm
- Taking samples
- Biology of weeds
- Identifying weeds
- Cultivating techniques for field crops

### *Literature / Study Material*

- Pankakoski A. 1999. Puutarhurin kasvioppi. 8th or 9th edition. Oy Edita Ab: Kasvikirjat.
- Hyttiäinen, Hedman–Partanen, Hiltunen. 1995. Kasvintuotanto 2.
- Other material as indicated

### *Learning Methods*

- Luennot: 20%
- Participation in training: 55 %
- Approved assignment and exam: 25 %

### *Assessment*

- Active participation in lectures
- Active participation in lab work and training
- Approved exams and possible flora portfolio

### *Languages of Instruction*

Finnish

## **Soils and meteorology, 3 op KA01BKATU02 (study unit)**

### *Lecturers*

Heikki Harmanen, LSc (Agr. & For.)

### *Objectives*

Students will acquire basic knowledge of soil formation and composition and be able to identify types of soils and their physical properties, and their relationship to farming. Students will be aware of the need to drain fields for crop cultivation and know the various methods for draining fields. They will be familiar with the basic concepts associated with meteorology, the factors affecting various weather-related phenomena, and the features of Finland's climate. They will understand the impacts of the meso- and micro-climates, and be capable of utilising the weather service for farming. They will know different drainage methods and the need for them. They will also know how to utilise related research.

### *Content*

- Soil formation
- Types of soils and their characteristics
- Minerals and secondary minerals
- Soil organic matter
- Weather observations
- Climate zones and Finland's climate
- Meso- and micro-climates
- Weather services for farming
- Drainage methods

### *Literature / Study Material*

- Heinonen et al. (eds.). Maa, viljely ja ympäristö. (appl. parts). WSOY.
- Saavalainen (ed.). 1981. Salaojittajan käsikirja, Part 1a. Suomen olosuhteet kuivatusta silmällä pitäen. Salojituksenkannatusyhdistys.



- Elomaa et al. 1988. Sää ja maatalous. Maaseutukeskusten liitto.

#### *Learning Methods*

- Lectures: 45 %
- Assignments: 10 %
- Distance learning and independent study: 45 % which are associated with the course contents and information students have acquired on a given topic, practical problem-solving, and an exam.

#### *Assessment*

- Exam: 50 %
- Assignments: 35 %
- Soil identification test: 15 %

#### *Further Information*

One credit for online studies

### **Fertilization and soil cultivation, 3 op KA01BKATU03 (study unit)**

#### *Lecturers*

- Jussi Esala, LSc
- Agrologist Juhani Suojäranta

#### *Objectives*

Students will understand how nutrients behave in the soil and plants and how they interact with fertilizers. They will be competent in determining the need for fertilization and spreading lime and in manually planning a fertilization scheme. Students will be aware of the aims and techniques of cultivating various types of soil, as well as the more common cultivation machinery.

#### *Content*

- Factors of growth as it relates to fertilization
- Fertilizers
- Fertilizing soil sustainably
- Manure and other organic fertilizers
- Principles and aims of soil cultivation
- Cultivation techniques

#### *Literature / Study Material*

- Heinonen et al. (ed.). 1992. Maa, viljely ja ympäristö. WSOY
- Kalkitusopas. Kalkitusyhdistys
- Alakukku et al. 2002. Maan rakenteen hoito. Tieto tuottamaan 98. ProAgria
- Ravinteet kasvintuotannossa. Tieto tuottamaan 127
- Other material distributed in the lectures

#### *Learning Methods*

- Lectures: 50 %
- Assignment: 20 %
- Exam: 30 %

#### *Assessment*

- Lectures
- Approved assignment
- Exam

### **Field crop production, 3 op KA01BKATU04 (study unit)**

#### *Lecturers*

- Agrologist Heikki Koskimies
- Agrologist Heikki Harmanen

- Agrologist Jussi Esala
- Agrologist Juhani Törmä

### *Objectives*

Students will understand the development phases of the more common field crops, cultivation techniques, and the factors that affect the quantity and quality of harvests. Students will know how to use machinery needed to harvest and process field crops. They will be competent in compiling a cultivation scheme and in making quality analyses. They will also be aware of the significance of the factors associated with quality.

### *Content*

- Principles of the yield of cereal harvests and stages of cereal development
- Cultivation techniques for field crops: cereals, rape seed, peas, grass
- Common quality analyses for cereals
- Making a cultivation scheme on computer
- Machinery used to harvest and process cereals

### *Literature / Study Material*

- Seppänen M. (ed.). 2008. Peltokasvien tuotanto. Ministry of Education.
- Esala et al. 1989. Leipäviljan tuotanto. Tieto tuottamaan 53. ProAgria.
- Ansalehto et al. 1999. Laatuviljan tuotanto. Tieto tuottamaan 80. ProAgria.
- Ruis 2005. Kansallinen ruisohjelma. 1998. Ministry of Agriculture and Forestry.
- Hakkola et al. 1998. Nurmenviljely. Tieto tuottamaan 77. ProAgria.
- Herneen tuotanto. 1993. ProAgria publications 860.
- Franssila et al. 2001. Öljykasvinviljelijän opas. Ministry of Agriculture and Forestry.
- Aikasalo et al. 2000. Ohrasta oluen synty. Käsikirja mallasohran tuottajille. Finnish Farmers' and Forest Owners' Union
- Riesinger P. 2006. Grunder för ekologisk växtodling. Del IV, Växtodling och förädling av foder.

### *Learning Methods*

- Contact teaching: 75 %
- Approved assignments and exam: 25 %

### *Assessment*

- Active participation in lessons
- Active participation in assignments and approved completion of them
- Approved exam

### *Prerequisites*

- Plant Biology
- Orientation into Plant Production

### *Languages of Instruction* Finnish

### *Further Information*

One credit for research and development

## **Basic course in weed science, 3 op KA01BKATU05 (study unit)**

### *Lecturers*

- Leena Riikonen
- Heikki Koskimies
- Jussi Esala
- Juhani Törmä

### *Objectives*

Students will know how to identify and categorise the more common weeds at the seedling stage and be familiar with the more common plant diseases and pests. Students will also be familiar with various procedures and techniques for killing weeds. They will be competent in planning the use of herbicides while considering the economical and environmental aspects involved in killing weeds. Students will be familiar with the how herbicides work and with the impacts they have on the environment and health.

### *Content*

- Properties and categorisation of weeds
- Non-chemical methods of killing weeds
- Herbicides, how they work and how to use them
- Killing problem weeds
- Growth regulators
- Plan for killing weeds that inhibit the growth of various field crops on an actual farm
- Techniques for plant protection
- Impacts of herbicides on the environment and health
- Identifying the more common diseases and plants pests

### *Literature / Study Material*

- Mäki-Valkama (ed.). 2005. Ajankohtaisia kasvinsuojeluohjeita. 14th or 15th edition. Plant Protection Society.
- Erkamo. 2001. Rikkakasviopas. Plant Protection Society.
- Koskimies et al. 1999. Luomupellon kasvinsuojelu. Tieto tuottamaan 84. ProAgria.
- Herbicide guidebooks.

### *Learning Methods*

- Luennot: 50 %
- Approved assignment: 20 %
- Approved exam: 30 %

### *Assessment*

- Active participation in lectures
- Approved assignment
- Exam

### *Languages of Instruction*

Finnish

### *Further Information*

One credit for research and development

## **Animal husbandry, 9 op KA01BKOTU (study entity)**

The aim of the module is to familiarise students with livestock production and the work involved in such production. Studies include the basics of the biological processes in livestock production as well as animal care and feeding.

## **Basics of Chemistry and biology in Animal Husbandry, 3 op KA01BKOTU01 (study unit)**

### *Lecturers*

Samu Palander, DSc

### *Objectives*

Students will acquire knowledge of the structure and function of animal cells, organs and tissues, the interaction of animals and their environment, as well as the biological significance of nutrients and nutrition.

### *Content*

- Biological chemistry of animal and feeds
- Principles of cell biology and heredity
- Anatomical structure and physiological functions significant to production, such as digestion, use of nutrients and reproduction
- Animal behaviour and welfare and impact of living conditions on them

### *Learning Methods*

- Lectures: 70 %
- Independent study: 30 %

### *Assessment*

Written examination (two midterm exams or one final exam)

## **Basic Practical Skills in Animal Husbandry, 6 op KA01BKOTU02 (study unit)**

### *Lecturers*

- Teija Rönkä, MSc (Agr. and For.)
- Samu Palander DSc (Agr. and For.)
- Veterinarian Vera Hakala, MSc (Agr. and For.)
- Lecturers in livestock production
- Livestock herdsman

### *Objectives*

Students will understand the significance and principles of livestock production in Finland and will be competent in keeping and feeding the more common farm animals. Emphasis will be placed on the care of pigs and cattle. Students will also be competent in monitoring animal health and the different phases of the reproduction cycle. They will be familiar with the legislation involved in registering animals and keeping records on drug administration. Students will know how to take notes for production and quality control. They will also know how to ensure the hygienic quality of products and prevent the spread of contagious diseases.

### *Content*

- Common domestic animal species and breeds and livestock development through breeding
- Marking and registering animals
- Principles of animal welfare legislation
- Handling and housing of animals and managing housing conditions
- Properties of the more significant types of feed, feed evaluation system and feeding recommendations
- Production cycle of farm animals and feeding and care at different phases of production
- Practical feeding work
- Monitoring animal health and preventive health care, principles of medication
- Production hygiene
- Milking
- Properties pertaining to the quality of milk, carcass and meat

### *Learning Methods*

- Active participation in lectures: 40 %
- Group teaching on farms (performance of practical work and observation): 40 %
- Independent study: 20 %

### *Assessment*

- Active participation
- Written assignments
- Written exam

## **The basics of environmental know-how and Forestry, 9 op KA01BYMME (study entity)**

### *Objectives:*

- Students will learn to take a multi-goal approach to rural enterprise while at the same time considering the impacts on the environment. They will be aware of the shared, world-wide environmental problems and the problems unique to their chosen profession. They will be competent in preventing such problems and in fixing damage that already exists. Students will acquire basic skills in the biological, technical, economical and social aspects of forest management and be competent in engaging in forestry work.

### *Contents:*

- Forestry: 3 cr
- Planning forestry management: 3 cr
- Environmental awareness for rural enterprises: 3 cr

## **Silviculture, 3 op KA01BYMME01 (study unit)**

### *Lecturers*

- Hannu Humalamäki, MSc (Agricultural Engineering)

- Juha Tiainen, MSc (Agr. and For.)

### *Objectives*

Students will learn the biological, technical and economical principles of forestry. They will be competent in independently working in forests and logging.

### *Content*

- Multi-goal use of the forest
- Forest management and manual logging
- Impact of soil and climate on the growth of forests
- Biological characteristics of the more common species of trees and how to care for them
- Methods for growing and renewing forests and applying those methods into practice

### *Literature / Study Material*

- Tapion Taskukirja, 2008. 25th edition. Metsälehti
- List of online material

### *Learning Methods*

- Lectures: 30 %
- Active participation on practical work: 30 %
- Approved assignments: 30 %
- Approved exam: 10 %

### *Assessment*

- Active participation in lectures
- Active participation in practical work
- Approved assignments and exam

### *Further Information*

One credit for research and development

## **Forest management, 3 op KA01BYMME02 (study unit)**

### *Lecturers*

Juha Tiainen, MSc (Agr. and For.)

### *Objectives*

Students will be familiar with the more common methods of forest measurement, and they will be competent in systematically utilising data acquired in the forest in decision-making situations in forest enterprises.

### *Content*

- Basic concepts and methods of forest measurement
- Principles for compiling a forest management scheme and utilising the scheme in practical forest management
- Budget for a forest enterprise

### *Literature / Study Material*

- Tapion Taskukirja. 2008. 25th edition. Metsälehti.
- List of online material

### *Learning Methods*

- Lectures: 30 %
- Active participation in practical work: 30 %
- Approved assignments: 40 %

### *Assessment*

- Active participation in lectures
- Active participation in practical work
- Approved assignments

*Further Information*

One credit for online studies

## **Basic environmental know-how, 3 op KA01BYMME03 (study unit)**

*Lecturers*

Horticulturist Senja Arkko

*Objectives*

Students will be aware of the shared environmental problems evident on Earth and of the problems unique to their chosen profession. They will be competent in preventing such problems and in fixing damage that has already been done. They will be familiar with field-related administration and legislation and sustainable development, and they will strive to abide by the principles in question both at work and during their leisure time. Students will be understand the diversity of nature, be able to identify the traditional biotopes in the natural landscape and to take care of them.

*Content*

- World-wide environmental problems and their impact on agriculture and forestry
- Environmental protection and conservation: administration and legislation
- Principles of sustainable development
- Field-specific problems
- Condition of the environment in Finland
- Traditional biotopes and caring for them
- Caring for the built landscape
- Nature conservation

*Literature / Study Material*

- Gustafson J. and Nuotio E. (eds.). 1998. Ympäristön ehdoilla? Maaseudun mahdollisuudet ja haasteet. Publication A:63 of the University of Turku Centre for Adult Education.
- Hakala H and Välimäki J. 2003. Ympäristön tila ja suojele Suomessa. Gaudeamus.
- Tiainen J, Kuussaari M, Laurila I. P., Toivonen T (eds.). 2004. Elämää pellossa. Suomen maatalousympäristön monimuotoisuus. Edita.
- List of online material

*Learning Methods*

- Lectures: 40 %
- Independent study: 60 %

*Assessment*

- Active participation in lectures
- Active participation in presentations
- Approved assignment

## **Agrotechnology, 12 op KA01BTERA (study entity)**

Studies in Agricultural Technology begin during the first academic year with the familiarisation with common machinery and equipment and practising the use of tractors and the machinery that can be connected to them as well as the safe and correct use of various tools. During the Introduction to Livestock Production course, students will also learn to use machinery and equipment needed in livestock production. They will also the basics of metalwork and welding and servicing machinery during their first year of studies. During their second academic year, students will learn the basics of agricultural machine technology. The main topics discussed are motors, transmissions, hydraulics, axles, tyres and controls. Students will also be introduced to the foundations of planning work and which machines should be used during each phase of work. The idea is to teach students to assess which existing techniques/machines are suitable for the needs of the farm and to consider the work on the farm as part of a larger picture. The purpose is to also understand the significance of farming technology in agricultural production. Students' expertise in agricultural technology is reinforced during the courses that teach about fertilization, soil cultivation, cultivating crops, and plant protection. Further, students will work as builders during the Building on a Farm course where they will also learn about the responsibilities involved in building on a farm and about the cost structure involved.

## **Use and maintenance of farming machines, 3 op KA01BTERA01 (study unit)**

*Lecturers*

Study Descriptions

- Paavo Juutila
- Jouni Korhonen, BSc (Eng.)
- Juha Ketola, BSc (Agr.)
- Jussi Esala, LSc (Agr. & For.)

### *Objectives*

Students will be able to connect different machines and trailers to a tractor and use them correctly being aware of safety. They will be aware of the dangers involved in using machines and of traffic regulations. Students will be competent in preparing for periodical maintenance of machines in advance and know how to service them correctly and safely, including waste management. Students will also gain knowledge about fuels and lubricants and know how to use them properly. In addition, they will be familiar with basic metalwork and welding and know how to do simple metal and welding work.

### *Content*

- Using tractors and the machines/trailers connected to them
- Work safety
- Knowledge and skills in maintenance of farm machinery
- Traffic legislation and farm machinery
- Fuels and lubricants
- Basics in welding and other metalwork

### *Literature / Study Material*

- Katainen H. 1989. Ainelitostekniikka
- Lepola P. 1998. Hitsaus ja teräsrakenteet
- Oikea voitelu 2003. Mobil

### *Learning Methods*

- Lectures (60 %)
- Assignment and other independent study (40 %)

### *Assessment*

- Active participation in exercises
- Approved assignments and exam
- Performance in using tractors and machinery
- Exam

## **Fundamentals of agricultural technology, 6 op KA01BTERA02 (study unit)**

### *Lecturers*

- Jussi Esala, LSc (Agr. & For.)
- Juhani Törmä, BSc (Agr)

### *Objectives*

Students will acquire basic knowledge of motors, transmissions, hydraulics, electrical equipment and electric control systems used in agricultural machines. Students will also learn about the electrotechnology of vehicles, the basic properties of control systems as well as the ergonomics of the cockpit. They will know how to compile work and machinery schemes and to calculate the correct size of machines and tractors for a farm.

### *Content*

- Basic structure of motors for tractors and machinery
- Transmissions
- Hydraulics
- Clutches
- Basics in electrotechnology for vehicles
- Schemes for machinery use
- Work standards
- Calculations with the TTS–kone computer programme

### *Literature / Study Material*

Malmström L. & Wetterblad B. 1999. Fordonslära: Traktorer och redskapsbärare.

### *Learning Methods*

- Contact teaching (50 %)
- Assignment and other independent study (50 %)

### *Assessment*

Active participation in the lessons and completion of the assignment and exam.

### *Further Information*

One credit for online studies

## **Contracting, 3 op KA01BTERA03 (study unit)**

### *Lecturers*

Construction Engineer Tiina Haapasaari, MSc

### *Objectives*

Students will be competent builders for the needs of a farm. They will be familiar with the duties a builder performs and will be competent in working responsibly in the various phases of a construction project. Students will know what permits are needed to engage in construction and understand the principles for planning the construction of farm buildings. They will also know the cost structure of building new farm buildings and repairing old ones.

### *Content*

- Quality and building on a farm
- Permits needed for building and applying for them
- Participants in a construction project
- Phases in a construction project
- Schedules for construction projects
- Impact of zoning on construction
- Making an invitation for tenders
- Types of contracting and agreements
- Principles of building farm buildings
- Regulations and guidelines for farm construction
- Cost management for building new buildings and repairing old ones

### *Literature / Study Material*

- Lecture handouts
- Other material as indicated by the lecturer

### *Learning Methods*

- Lectures: 60 %
- Assignments
- Independent study

### *Assessment*

Approved assignments

## **Agricultural economics, 9 op KA01BEKO (study entity)**

Extent: 9 cr, which comprises the following courses:

- Foundations in Agricultural Economics (6 op)
- Taxation in Farming (3 op)

Objectives: Students will gain the knowledge and skills needed in managing an agricultural enterprise.

## **Basic principles of farm economics, 6 op KA01BEKO01 (study unit)**

### *Lecturers*

- Agronomist Eliisa Kallio
- Jyrki Rajakorpi MSc (Agr.)



*Objectives*

Students will understand economic concepts and policies associated with agriculture as well as the principles of calculating costs, profit and profitability. They will be competent in obtaining and utilising information based on feasibility studies. Students will also become familiar with the working environment of an agricultural entrepreneur and the significance of agriculture in our society, as well as with the administrative aspects of agriculture and professional and commercial organisation of the field. They will also be introduced to the main concepts of agricultural policies in the EU.

*Content*

- Economic concepts associated with agriculture
- Calculating costs, profit and profitability
- Managing an agricultural enterprise
- Information acquisition
- Profitability accounting and parameters
- Principles of agricultural policies
- Significance of agriculture in society
- Components of agricultural policies
- WTO negotiations
- Agricultural policies in the EU

*Literature / Study Material*

- <http://www.mtt.fi/mttl/kirjanpitotilat.html>.
- Karhula, Ylätalo, Ryhänen & Latukka 2002. Maitotilojen taloudellinen tulos ja kannattavuus 2000–2010. Dept. of Economics: University of Helsinki. Publication 37: pp. 157–166.
- Kola J. 2009. Maatalouspolitiikan perusteet. Maatalouspolitiikkaosio MAE 1 A. Lecture handout. Helsinki: University of Helsinki, Dept. of Economics and Management.
- Lecture notes and other material provided by lecturer.

*Learning Methods*

- Lectures: 50 %
- Independent study: 50 %

*Assessment*

- Active participation in lectures
- Approved assignments and exams

## **Agricultural taxation, 3 op KA01BEKO02 (study unit)**

*Lecturers*

- Agronomist Eliisa Kallio
- Juha Tiainen, MSc (For.)

*Objectives*

Students will familiarise themselves with the regulations set forth in the Income Tax Act and the accounting and planning involved in taxation. They will understand the significance of planning taxation in the fields of agriculture and forestry, and they will be competent in filling out tax forms pertaining to agriculture and forestry.

*Content*

- Acts and regulations pertaining to taxation in farming
- Tax accounting, filling out tax forms and VAT forms in the fields of agriculture and forestry based on a given example
- Making appeals pertaining to taxation
- Planning taxation for farm operations

*Literature / Study Material*

- Taxation in agriculture, instructions for filling out tax forms (latest edition).
- Tax administration publication 53.03 at <http://www.vero.fi>
- Accounting book
- Tax forms
- Lectures and material distributed during lectures

- Tapion taskukirja 2008

### *Learning Methods*

- Lectures: 50 %
- Independent study: 50 %

### *Assessment*

- Active participation in lectures
- Taxation calculations
- Approved assignments and exam

## **Entrepreneurship and basics of agrobusiness, 9 op KA01BYRLI (study entity)**

Students will have command of the principles of planning and establishing a business, sales and marketing of a product, as well as the terminology associated with financial management and setting up a control system. Teaching is based on lectures and assignments as well as on literature as indicated by the lecturer. The final grade is the average of all of the parts of the module. The module comprises three parts:

- Marketing (3 cr): Students will understand the idea behind comprehensive marketing and be familiar with the essential concepts in marketing and competitive tools.
- Establishing a New Business (3 cr): Students will be competent in making a business plan for an SME (small and mid-sized enterprise) and doing the necessary calculations, as well as in assessing the sensibility of a business idea and the type of company for different situations.
- Double-entry Bookkeeping (3 cr): Students learn to understand the essential concepts and idea behind the financial management in an SME through the study of accounting and financial statements.

## **Introduction to marketing, 3 op KA01BYRLI01 (study unit)**

### *Lecturers*

Anu Katila, MSc (Econ.)

### *Objectives*

Students will understand the significance of comprehensive marketing and be familiar with the basic concepts and competitive tools.

### *Content*

- Significance and purposes of marketing
- Adopting a marketing-based way of thinking
- Competitive tools in marketing

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

- Lectures
- Assignments
- Independent study

### *Assessment*

- Approved exam and assignments
- Active participation in lectures

## **New venture strategies in rural small business, 3 op KA01BYRLI02 (study unit)**

### *Lecturers*

Erkki Laitila, MSc (Econ.)

### *Objectives*

Students will be competent in making a business plan and necessary calculations for small and mid-sized enterprise, as well as in evaluating the profitability of such an enterprise. They will be capable of choosing an appropriate type of

company and understand how the various types of companies are established.

#### *Content*

- Evaluating the sensibility of a business idea
- Calculations needed to evaluate the business of a new company
- Evaluating the sensibility of the various types of companies in various decision-making situations
- Compiling a business plan for a new company or business

#### *Literature / Study Material*

Material as indicated by the lecturer.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

- Examination
- Approved assignments

#### *Further Information*

One credit for research and development

### **Introduction to bookkeeping, 3 op KA01BYRLI03 (study unit)**

#### *Lecturers*

Erkki Laitila, MSc (Econ.)

#### *Objectives*

Students will learn to understand the more common concepts and thoughts behind the financial management of a small and mid-sized enterprise through the study of the principles of accounting and the logic behind financial statements.

#### *Content*

- Logic behind double-entry bookkeeping
- Performance-based bookkeeping and techniques
- Structure of financial statements for a business
- Interpretation of bookkeeping and financial statements

#### *Literature / Study Material*

Material as indicated by the lecturer.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

- Examination
- Approved exercises and assignments

### **THE GROWING SEASON, 10 op KA01BKASVU (study entity)**

Lecturers: Senja Arkko, Heikki Harmanen, Hannu Humalamäki, Heikki Koskimies, Leena Riikonen, Juha Tiainen, Anna Tall, Jussi Esala; Timo Riikonen, Marko Hautamäki and guest lecturers  
Objectives: Students will observe what happens in the fields, garden and forest during the growing season. They will learn to identify the developmental stages of plants, the need for plant protection, as well as valuable natural areas. Students will be aware of the factors that influence harvest and the quality of harvests, as well as those influencing the growth of forests. They will get acquainted in machinery used in crop harvesting as well as they will know how to assess the quality of work in various stages of cultivation and the factors affecting it. Students will also be familiar with the main points in testing sprayers. Contents: Species of plants for field and garden cultivation, sample garden, weeds, diseases, and plant pests, need for plant protection, caring for valuable natural areas, forestry skills, landscape designing, familiarisation with research activities, evaluation of cultivation, testing sprayers, excursions to the agro technology and the forestry industry. Literature/study material:

- Mäki–Valkama (ed.). 2005. Ajankohtaisia kasvinsuojeluohjeita. Kasvinsuojeluseura
- Erkamo. 2001. Rikkakasviopas. Kasvinsuojeluseura.
- Plant identification books

- Tapion Taskukirja 2002
- Other material provided by the teacher

Learning methods: Lectures and guided exercises (65 %), independent study (35 %) Assessment: Active participation, continuous assessment, reports

## **ADVANCED STUDIES, 40 op** **KA01CSV (study entity)**

Students may choose 40 credits worth of coursework from the following options:

- Business Operations
- Livestock Production and Health Care of Livestock
- Plant Production and Agricultural Technology
- Food Processing together with Biotechnology and Food Processing Technology degree programme

The studies involve furthering students' knowledge in their chosen area of specialisation.

## **Agrobusiness, 40 op** **KA01CLITO (study entity)**

Students may study business as part of their Optional Professional Studies worth 40 credits. They can specialise in Agricultural Entrepreneurship by taking the following courses: KA01CLIO01, KA01CLITO02, KACLITO03, KA01CLITO04, KA01CLITO05, and KA01CLITO06. Students may specialise in Rural Entrepreneurship by taking the following courses: KA01CLIO01, KA01CLITO02, KACLITO03, KA01CLITO07, KA01CLITO08, KA01CLITO09, and KA01CLITO10. NB: Students should choose their thesis topic and practical training based on their studies in their line of specialisation. Specialising in business provides students with the knowledge and skills they need to manage an agricultural or rural enterprise, compile high-quality budgets, and to calculate the profitability of various production alternatives and solvency. Students will also have command of the calculations needed to make investments and acquire funding.

## **Investments and financing, 9 op** **KA01CLITO01 (study unit)**

### *Lecturers*

Margit Närvä, DSc (Tech.)

### *Objectives*

Students will be introduced to the typical investments made by agricultural and rural enterprises. They will be competent in making investment calculations and calculating the profitability of investments. Additionally, students will learn about financing and anticipating solvency.

### *Content*

- Investment theories
- Significance of the time factor •
- Planning investments and calculating their profitability
- Financial planning
- Risks, risk management and uncertainty •

### *Literature / Study Material*

- Barry, Ellinger, Hopkin, & Baker. 2000. Financial Management in Agriculture (assigned parts)
- Brealey & Myers. 2003. Principles of Corporate Finance (assigned parts)
- Online material

### *Learning Methods*

- Lectures: 50 %, of which lectures 25 % and guided learning 25 %
- Independent study: 50%, of which assignments 30 % and preparation for exam 20 %

### *Assessment*

- Students who are familiar with the basic principles of investing and financing, are able to describe these concepts satisfactorily, and are familiar with practical applications will receive a grade of 1 or 2.
- Students who have basic command of the theoretical foundations of investing and financing, are able to describe them well and have good command of the practical applications will receive a grade of 3.

- Students who have strong command of the theories of investing and financing, are able to clearly describe them, have excellent command of practical applications, have a profound understanding of the phenomena associated with investing and financing and are able to examine problems in the field from many different points of view will receive a grade of 4 or 5.
- Exam (30 %)
- Assignments and active participation (70 %)

## **Marketing, 5 op KA01CLITO02 (study unit)**

### *Lecturers*

Anu Katila, MSc (Econ.)

### *Objectives*

Students will acquire knowledge about planning and managing marketing, and learn about the factors influencing planning and management. They will also learn how to compile a marketing plan.

### *Content*

Topics discussed in the course include strategic decisions in marketing and the planning of marketing.

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Lectures, independent and group work
- Contact teaching (50 %)
- Independent study (50 %)

### *Assessment*

Active participation in classes and in completing assignments.

### *Prerequisites*

Introduction to Marketing

### *Further Information*

- Two credits for research and development
- One credit for online learning

## **Management of agrobusiness– corporation, 5 op KA01CLITO03 (study unit)**

### *Lecturers*

Docent Matti Ryhänen, DSc (Agr. & For.)

### *Objectives*

Students will develop a profound understanding of how to manage an agricultural or rural enterprise.

### *Content*

- Management of a agricultural or rural enterprise
- Strategic and operative management
- Decision-making process
- Duties of the entrepreneur (business and production management)

### *Literature / Study Material*

- Ryhänen, Sipiläinen & Latukka 2009. Maatalousyrityksen johtaminen ja tuotannon suunnittelu. Handout (assigned parts).
- Kay, Edwards & Duffy 2008. Farm Management (assigned parts). McGraw–Hill.
- Olson. 2004. Farm Management: Principles and Strategies (assigned parts). Blackwell Publishing Company: Iowa State Press. •

### *Learning Methods*

- Lectures: 50 %
- Independent study: 50%, of which 25 % are assignments and 25 % is preparing for the exam

*Assessment*

- Students, who are familiar with the basic principles of management and are able to satisfactorily apply their knowledge into practice will receive a grade of 1 or 2.
- Students who have basic command of the theoretical foundations of management and have good command of the practical applications of that theory will receive a grade of 3.
- Students who have strong command of the theories of management, are able to clearly describe them and easily apply them into practice, and to examine the challenges of management from many points of view will receive a grade of 4 or 5.
- Exam (50 %)
- Assignments (50 %)

*Further Information*

Five credits for research and development

## **Business Planning of Agrobusiness– Corporation, 10 op KA01CLITO04 (study unit)**

*Lecturers*

- Docent Matti Ryhänen, DSc (Agr. and For.)
- Heikki Harmanen, LSc (Agr. and For.)
- Jussi Esala LSc (Agr. and For.)
- Samu Palander, DSc (Agr. and For.)
- Agronomist Eliisa Kallio

*Objectives*

Students will be competent in compiling a financial plan for an agricultural enterprise and calculating solvency and the profitability of various production alternatives. Students will also understand the policies behind EU funding and how changes in the operating environment affect financial planning and the choices an agricultural entrepreneur makes. Upon completion of the course, students will be competent in creating a high-quality financial plan for an agricultural enterprise.

*Content*

- Setting goals
- Surveying resources
- Assessing capital
- Reviewing production possibilities
- Planning production and utilising planning models in theory and in practice
- Analysing results and choosing a production line
- Yield and profitability calculations and interpretation
- Calculating solvency

*Literature / Study Material*

- Ryhänen, Sipiläinen & Latukka 2009. Maatalousyrittäjän johtaminen ja tuotannon suunnittelu. Handout.
- Kay, Edwards & Duffy 2008. Farm Management (assigned parts). McGraw–Hill.
- Olson. 2004. Farm Management: Principles and Strategies (assigned parts). Blackwell Publishing Company: Iowa State Press.
- Barry, Ellinger, Hopkin & Baker 2000. Financial Management in Agriculture (assigned parts).
- Handbooks and standards
- Various websites
- Other material distributed by the lecturer •

*Learning Methods*

Co-operative learning: Students work actively together. The teacher(s) support, assist and encourage them as they learn. Students share their experience and learn from the experiences of others. The teacher(s) share their expertise with the students and the students among themselves (collaboration with teachers of production and technology subjects). Learning is based on problem-solving. Students are guided in making a production plan of their interest (somewhat extensive research), the central results of which they interpret and report about to the teachers and the entire group. Students' work: contactteaching (50 %), includes the entire class and groups, and independent study (50 %).

*Assessment*

Students write a report, which is approved/revised. Emphasis in evaluation is placed on how the students are able to modify their knowledge, skills and plan such that they are able to optimally manage production and economic operations. Students are assessed throughout the entire course (self-evaluation and reflection together with the teachers).

### *Prerequisites*

- Agricultural Economics (KA01BEKO01)
- Economics of Agricultural Production (KA01CEKO01)
- Managing an Agricultural or Rural Enterprise (KA01CEKO03)

### *Further Information*

Ten credits for research and development

## **Agricultural policy, 5 op KA01CLITO05 (study unit)**

### *Lecturers*

Jyrki Rajakorpi, MSc (Agr. and For.)

### *Objectives*

Students will be familiar with the scientific basis and purposes of agricultural policies. They will also be familiar with the background of agricultural policies in the EU and understand the international agreement and decision-making system.

### *Content*

- Scientific basis and purposes of agricultural policies
- Agreement and decision-making system of agricultural policies, e.g. WTO
- Agricultural policies in the EU
- National legislation and the EU
- National laws and decrees pertaining to EU funding
- EU forms for applying for funding and how to fill them in (example farm)
- Significance of planning

### *Literature / Study Material*

- Kola. 2009. Maatalousekonomian perusteet: Maatalouspolitiikkaosio, MAE1a. University of Helsinki, Dept. of Economics and Management. Lecture handout.
- [www.mavi.fi](http://www.mavi.fi)
- [www.mmm.fi](http://www.mmm.fi)
- [http://europa.eu.int/comm/agriculture/mtr/index\\_fi.htm](http://europa.eu.int/comm/agriculture/mtr/index_fi.htm)
- [http://europa.eu.int/comm/agriculture/index\\_fi.htm](http://europa.eu.int/comm/agriculture/index_fi.htm)
- [http://europa.eu.int/comm/dgs/agriculture/index\\_fi.htm](http://europa.eu.int/comm/dgs/agriculture/index_fi.htm)

### *Learning Methods*

- Lectures: 50 %
- Independent study: 50 %

### *Assessment*

Approved assignments and exam.

### *Languages of Instruction*

Finnish

## **Production economics in Agriculture, 6 op KA01CLITO06 (study unit)**

### *Lecturers*

Docent Matti Ryhänen, DSc. (Agr. & For.)

### *Objectives*

Students will be familiar with the production and cost theory. They will be competent in obtaining new information from academic publications, for example, and utilising that information to solve financial problems in plant production and animal husbandry. Students will understand the hypotheses behind field-related research and consider them when utilising the results of the research.

### *Content*

- Theory vs. the real world
- Theory vs. models
- Presenting phenomena graphically and mathematically
- Optimization (input-output and input-input relationships)

- Maximizing profit and minimizing costs
- Significance of the environment in productive operations
- Economics of plant and livestock production

#### *Literature / Study Material*

- Ryhänen, Sipiläinen & Latukka 2009. Maatalousyrittäjän johtaminen ja tuotannon suunnittelu. Handout.
- Kay, Edwards & Duffy 2008. Farm Management. McGraw–Hill. pp. 105–156.
- Turkki 2008. Tuotantoeconomia. University of Helsinki: Dept. of Economics. Series No. 4. 2nd edition.
- Lecture notes and other material as indicated during lectures.

#### *Learning Methods*

- Lectures: 50 %
- Independent study: 50 %

#### *Assessment*

- Students who understand the economical phenomena taught and are able to describe them and who have satisfactory command of applying theory into practice will receive a grade of 1 or 2.
- Students who understand the economical phenomena taught and are able to describe them well and who have good command of applying theory into practice, are able to solve economical problems mathematically and have a somewhat profound understanding of the phenomena will receive a grade of 3.
- Students who have a profound understanding of the economical phenomena taught, are able to describe them well and have excellent command of applying theory into practice, and are able to examine these phenomena from several different points of view and operational environments will receive a grade of 4 or 5.
- Exam: 70 %
- Assignments: 30 %

#### *Prerequisites*

Foundations in Agricultural Economics (KA01BEKO001)

### **Cost accounting and pricing, 6 op KA01CLITO07 (study unit)**

#### *Lecturers*

- Erkki Laitila, MSc (Econ.)
- Guest lecturers

#### *Objectives*

Students will understand the goals of the financial management system in an SME and be competent in creating a simple financial management, accounting and pricing system.

#### *Content*

- Essential concepts associated with accounting
- Logic of calculation methods
- Developing a financial management system for an existing SME

#### *Literature / Study Material*

Material/literature as indicated by the lecturers.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

- Examination
- Approved calculations
- Approved assignments

#### *Further Information*

Two credits for research and development



## **Business Law, 6 op KA01CLITO08 (study unit)**

### *Lecturers*

- Coordinating teacher Erkki Laitila
- Experts in law

### *Objectives*

Students will be familiar with the main issues in legislation pertaining to SMEs and agricultural enterprises and know how to apply their acquired knowledge to practical management situations.

### *Content*

The course comprises various parts, which pertain to the legislation regulating operations in SMEs and agricultural enterprises. The mentioned parts are as follows:

- Contractual relationships in business, incl. consumer protection policies
- Regulation of competition and public procurement
- Control and selling of fixed assets
- Social security of entrepreneurs, responsibilities of employers
- Company taxation
- Types of companies and choosing the right one

Each part of the course involves lectures, independent study and group work.

### *Literature / Study Material*

Material/literature as indicated by the lecturer(s) for each part of the course.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Each part of the course will be evaluated separately as indicated by the lecturer(s), i.e. exam and/or assignments. The final grade is the average of the grade for each part of the course. Students may not complete individual parts of the course and receive an individual grade.

### *Further Information*

Three credits for research and development

## **Planning of Business, 6 op KA01CLITO09 (study unit)**

### *Lecturers*

- Erkki Laitila, MSc (Econ.)
- Margit Närvä, DSc (Tech.)

### *Objectives*

Students will apply the knowledge they have learned into practice in a real enterprise. They will be competent in developing the business activities of the enterprise and in preparing a business plan for an enterprise to be established. Students will understand the significance of strategy and its relationship to the activities in an enterprise.

### *Content*

Students can make a choice between an assignment to be carried out in an existing enterprise or plan the business activities for an enterprise to be established.

### *Literature / Study Material*

Material and literature pertaining to the chosen assignment.

### *Learning Methods*

- Lectures
- Assignment
- Seminar

### *Assessment*

Approved assignment

### *Prerequisites*

- Managing an Agricultural or Rural Enterprise (KA01CLITO03)
- Substance Competence (KA01CLITO10)

### *Further Information*

Six credits for research and development

## **Substance– orientated know–how, 3 op KA01CLITO10 (study unit)**

### *Objectives*

Students choose an elective course in an area of expertise in which they wish to complete an assignment for the Planning a Business course get familiar with that branch of industry which is used in assignment in Business Plan course (KA01CLITO09).

## **Animal Husbandry and welfare of production animals, 40 op KA01CKOTU (study entity)**

Students choose courses worth at least 40 credits from the elective courses available, which will provide them with extensive knowledge of the trends in animal husbandry and competence for duties on this field. The selection may emphasise production (min. 40 credits according to the list below) or farm animal health care (min. 44 credits according to the list below). Selecting individual specialisation courses related to any area of production is also possible. Students are required to complete the general studies in Livestock Production (OK KA01BKOTU) before taking any of these courses.

## **Specialising in pig production, 6 op KA01CKOTU01 (study unit)**

### *Lecturers*

Samu Palander, DSc (Agr. and For.)

### *Objectives*

Students will acquire a comprehensive understanding of pig husbandry. They will become competent entrepreneurs or consultants in the field.

### *Content*

- Current issues in nutrition and management
- Production monitoring
- Nutrition and feed formulation
- Breeding
- Building and production technology

### *Learning Methods*

Lectures, discussions, problem–solving assignments, information acquisition, reports, and literature

- Contact teaching: 40 %
- Independent study: 60 %

### *Assessment*

- Active participation
- Assignments
- Written and oral final examination

### *Prerequisites*

- Principles of Biology and Chemistry in Livestock Husbandry
- Introduction to Livestock Husbandry

## **Specialising in cattle production, 12 op KA01CKOTU02 (study unit)**

### *Lecturers*

- Samu Palander, DSc (Agr. and For.)

- Teija Rönkä, MSc (Agr. and For.)
- Kimmo Nissinen, MSc (Agr. and For.)

### *Objectives*

Students will receive in-depth knowledge of the activities of a cattle farm as well as the readiness to work as an entrepreneur and consultant.

### *Content*

- Current issues in feeding and caring for dairy cattle and beef cattle
- Production control
- Planning feeding
- Planning breeding
- Current issues in health care and planning health care for livestock
- Construction, production and dairy technology

NB: Students are required to take Grass Cultivation to complete the specialisation studies in Farming with Beef Cattle.

### *Literature / Study Material*

The literature and study material for this course is the same as for the Farming with Beef Cattle course. In addition, students will read field-related articles, research, and material as indicated during the lectures and through students' own information acquisition.

### *Learning Methods*

- Lectures (incl. guest lecturers)
  - Discussions
  - Problem-solving assignments
  - Reports
  - Information acquisition
  - Literature
- 
- Contact teaching: 40 %
  - Independent study: 60 %

### *Assessment*

- Active participation
- Assignments
- Written exams

### *Prerequisites*

- Theory of Nutrition and Feed
- Farming with Beef Cattle

### *Languages of Instruction*

Finnish

## **Specialising in poultry production, 6 op KA01CKOTU03 (study unit)**

### *Lecturers*

Samu Palander, DSc (Agr. and For.)

### *Objectives*

Students will acquire a comprehensive understanding of poultry husbandry as growing field of production. They will learn to care for poultry and to work as an entrepreneur or other professional in the field.

### *Content*

- Structure and significance of poultry husbandry
- Production, nutrition and care of hens, chicks and meat poultry
- Reproduction and incubation
- Housing conditions
- Health and welfare of poultry
- Building and production technology
- Current issues in poultry husbandry according to interest

### *Learning Methods*

Lectures (incl. guest lecturers), discussions, problem-solving assignments, information acquisition, reports, and literature.

- Contact teaching (40 %)
- Independent study (60 %)

### *Assessment*

- Active participation
- Assignments
- Written examination

### *Prerequisites*

- Principles of Biology and Chemistry in Livestock Husbandry
- Introduction to Livestock Husbandry

## **Automation in Animal Husbandry, 3 op KA01CKOTU04 (study unit)**

### *Lecturers*

- Jussi Esala, LSc (Agr. and For.)
- Agrologist Juhani Törmä BSc (Agr. and For.)

### *Objectives*

Students will understand the operation principles of control systems related to feeding, milking, manure removal and ventilation systems, and they will be able to make basic settings on them. Students will also be able to use control systems and feeding programmes on the school's farm. They will acquire knowledge of the technology related to animal welfare, exercise and in-house positioning systems.

### *Content*

- Basics in control engineering technology
- Automated feeding systems, controls and automation pertaining to milking machines, milking robots
- Ventilation systems
- Manure removal equipment and how to use it
- In-house positioning system
- Technology that promotes the health and well-being of livestock

### *Literature / Study Material*

Material as indicated during lectures.

### *Learning Methods*

- Lectures: 40 %
- Assignment and other independent study: 60 %

### *Assessment*

- Active participation in lessons
- Approved assignment

### *Prerequisites*

Foundations of Agricultural Technology (KA01BTEKO02)

## **Computer-aided planning of farm economics, 6 op KA01CKOTU05 (study unit)**

### *Lecturers*

Agronomist Eliisa Kallio

### *Objectives*

Students will understand the principles of production planning, which leads to the best possible economic outcome. They will understand how the planning of production progresses when utilising the gross margin method.

### *Content*

- Managing an agricultural enterprise
- Entrepreneurship and working as an entrepreneur
- Acquiring information and analysis of it
- Planning production according to the gross margin method
- Determining production alternatives, business results and solvency

#### *Literature / Study Material*

- Ryhänen, Sipiläinen & Latukka 2009. Maatalousyrityksen johtaminen ja tuotannon suunnittelu. Handout.
- Ryhänen & Viitala 2003. Virtuaalinen katetuottomenetelmän mukainen taloussuunnitelma.

#### *Learning Methods*

- Co-operative learning
- Contact teaching (lectures, group discussions, feedback): 30 %
- Independent study: 70 %

#### *Assessment*

- Active participation in supervised sessions and feedback sessions
- Approved assignment

#### *Prerequisites*

Foundations of Agricultural Economics (KA01BEKO01)

## **Maintaining animal health, 9 op KA01CKOTU06 (study unit)**

#### *Lecturers*

Vera Hakala, MSc (Agr. and For.)

#### *Objectives*

Students will become familiar with the anatomy, physiology and immunology of livestock. They will be aware of the factors that threaten the health of an animal. Students will also have the opportunity to learn about the work veterinarians do with domestic animals.

#### *Content*

- Basics in the anatomy, physiology and immunology of domestic animals
- Species-specific behaviour and its impact on health
- Legislation pertaining to animal husbandry and medication
- Preventing illnesses due to living conditions
- Familiarisation with the work of a veterinarian

The course is divided to two parts:

- Part 1: Healthy and unhealthy animals
- Part 2: Factors that contribute to animal welfare

#### *Literature / Study Material*

- Lecture notes
- Sirkkola H. & Tauriainen S. 2009. Eläinten lääkintä ja hyvinvointi. Opetushallitus.
- Mälkiä P., Ahlfors K. & Teräväinen H. 2000. Tuotantoeläinten hyvinvointi.
- Valros A., Teräväinen H. and Helin J. Hyvinvoiva tuotantoeläin. Tieto tuottamaan series. ProAgria.
- Evira's guidebooks: Tavoitteena terve ja hyvinvoiva nauta, sika, hevonen, lammas, vuohi ja kana.
- Legislation related to the topic
- Other material as indicated at a later date

#### *Learning Methods*

- Lectures
- Assignments
- Field trips
- Demonstrations

#### *Assessment*

Written exam (2) and assignments

## **Applied microbiology, 2 op KA01CKOTU07 (study unit)**

### *Lecturers*

- Veterinarian Vera Hakala, MSc (Agr. and For.)
- Samu Palander DSc (Agr. and For.)
- Guest lecturers

### *Objectives*

Students take a look into the world of microbes from the point of view of livestock husbandry.

### *Content*

- Diseases in animals caused by viruses, bacteria and parasites
- Overall view to microbiology in livestock husbandry and food

### *Literature / Study Material*

- Lecture notes
- Independent information acquisition

### *Learning Methods*

Lectures and a written report about a microbe of the student's choice.

### *Assessment*

- Written exam
- Active participation required in lectures
- Written report and short oral presentation of it

## **Animal diseases, 3 op KA01CKOTU08 (study unit)**

### *Lecturers*

- Veterinarian Vera Hakala, MSc (Agr. and For.)
- Guest lecturers

### *Objectives*

Students will be familiar with the more common contagious diseases contracted by domestic animals and the ways these diseases can be prevented.

### *Content*

- Common contagious diseases caused by viruses, bacteria and parasites and how to prevent them
- General discussion of the law on animal diseases

### *Literature / Study Material*

- Sirkkola H. & Taurianen S. 2009. Eläinten lääkintä ja hoito. Ministry of Education.
- Legislation on animal diseases as applies
- Lecture material

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Active participation in lectures and possible field trips
- Written exam
- Completion of assignments

## **Use of medicines in veterinary, 3 op KA01CKOTU09 (study unit)**

### *Lecturers*

Vera Hakala, MSc (Agr. and For.)

### *Objectives*

Students will acquire an understanding of causes and consequences in treating animals with drugs as well as the relationship of animal drugs to the safety of food and the environment.

### *Content*

The contents of the course include a discussion of the general aspects of common drugs. Emphasis is placed on the understanding of the appropriate use of drugs with regard to human beings, animals and the environment. Students will acquire knowledge of the legislation pertaining to the administration of drugs to animals from the viewpoint of the animal caretaker.

### *Literature / Study Material*

- Lecture material
- Legislation pertaining to drug administration to animals (applicable parts)
- Other material as indicated during lectures

### *Learning Methods*

Lectures and literature

### *Assessment*

Written exam

## **Planning and management of health care, 3 op KA01CKOTU10 (study unit)**

### *Lecturers*

- Veterinarian Vera Hakala, MSc (Agr. and For.)
- Guest lecturers

### *Objectives*

Students will acquire an understanding of health care for livestock and be familiar with related organisations in Finland.

### *Content*

- Goals and methods in livestock health care
- Relevance of health care to the food chain.

The course also includes a review of the issues discussed in previous courses pertaining to animal welfare and is therefore a final course that ends the module.

### *Literature / Study Material*

- Lecture material
- Legislation associated with animal drug care as applies
- Other material as indicated during lectures

### *Learning Methods*

- Lectures
- Assignments
- Literature
- Possible field trips

### *Assessment*

Written exam

## **Other special topics of animal production, 3 op KA01CKOTU11 (study unit)**

### *Lecturers*

Samu Palander, DSc (Agr. and For.)

### *Objectives*

The aim of the course is to familiarise students with the less common branches of livestock production.

### *Content*

- Significance of keeping sheep, goats, fur animals, bees, fish and reindeer production
- Products associated with sheep, goats, fur animals, bees, fish and reindeer
- Production opportunities related to sheep, goats, fur animals, bees, fish and reindeer
- Feeding, breeding and caring for livestock

#### *Learning Methods*

- Lectures (incl. guest lecturers)
- Written and oral presentations on a chosen topic (poster and presentation of it)
- Contact teaching: 20 %
- Independent work: 80 %

#### *Assessment*

- Active participation
- Completed assignments and presentations
- Final exam

#### *Prerequisites*

- Biology and Chemistry of Livestock Production
- Foundations of and Skills in Livestock Production

### **Horse and stable management, 2 op KA01CKOTU12 (study unit)**

#### *Lecturers*

To be announced.

#### *Objectives*

Students will have command of the knowledge and skills needed to keep and breed horses.

#### *Content*

- Familiarisation with horses and how to care for them
- Stable conditions
- Behaviour of horses
- Handling, caring for and feeding horses
- Health care of horses

#### *Literature / Study Material*

- Saastamoinen, Hyypä & Laine 1999. Hevosen kasvatus, ruokinta ja hoito. ProAgria.
- Other material as indicated during lectures

#### *Learning Methods*

- Lectures
- Practical exercises
- Assignment

#### *Assessment*

- Active participation in lectures
- Approved assignment
- Exam

#### *Languages of Instruction*

Finnish

#### *Further Information*

NB! This course is an elective course, which means that it is not a part of the general livestock production specialisation studies.

### **Crop production and agro technology, 40 op KA01CKATE (study entity)**



Students will create a module for themselves from the specialisation courses, which will provide them with advanced skills and knowledge needed to work in jobs involving consultation, research, education, agribusiness or agricultural administration in the fields of crop production and agrotechnology. The module (40 cr) consists of 27 cr compulsory and 13 cr optional studies. The compulsory 6 cr of economics. Students may place emphasis on crop production or technology by taking related optional studies and by choosing related practical training place and thesis topic. To ensure the smooth progression of the thesis process, students are urged to decide, together with the thesis supervisor, on a topic for their thesis during their third year of studies at the latest. The four compulsory courses for crop production – Field Drainage and Irrigation, Diseases and Pests of Cultivated Crops, Grassland Management, Planning and Managing Cultivation (12 cr in total) and Agricultural Technology in Crop Production (6 cr) – are integrated through an assignment pertaining to the planning and development of crop production. Agricultural Financial Management with the Gross Margin Method (6 cr) provides students with insight into how to evaluate the financial impacts of planned solutions.

## **Field drainage and irrigation, 3 op KA01CKATE01 (study unit)**

### *Lecturers*

Heikki Harmanen, LSc (Arg. and For.)

### *Objectives*

Students will be familiar with the impact the climate in Finland has on the need to drain soils and irrigate crops. They will also be familiar with various drainage and irrigation systems and their advantages and practical use in field cultivation. Students will understand the impact of irrigation on the amount and quality of the harvest. They can also utilise related research outcomes.

### *Content*

- Factors influencing drainage and irrigation
- Methods of drainage, their advantages and progression of projects
- Methods of irrigation

### *Literature / Study Material*

- Heinonen (ed.). 1992. Maa, viljely ja ympäristö. Chapter 3. WSOY.
- Pajula and Triipponen (eds.). Selvitys Suomen kastelutilantesta. Suomen ympäristö 629. (OR Sadetusopas 1979. ProAgris).
- Pajula and Järvenpää (eds.). 2007. Maankuivatuksen ja kastelun suunnittelu. Finnish Environment Institute report 23/2007, pp. 187. Available online only.
- Peltomaa. 1999. Salaojien kunnossapito-opas (also online). Field Drainage Center.
- Salaojituksen tukisäätiö and Helsinki University of Technology. Maa vesi ja ravinnetalous: ojitus, kastelu ympäristö&#148;(upcoming 2009–2010).

### *Learning Methods*

- Lectures: 45 %
- Distance learning and independent study: 55 %, which involves looking for field-related information and problem-solving
- Exam

### *Assessment*

- Exam: 50 %
- Assignments: 50 %
- Active participation in lectures
- Active participation in practical exercises
- Approved assignment
- Exam

### *Prerequisites*

Soils and Meteorology

### *Further Information*

One credit for online studies

## **Diseases and pests of cultivated plants, 3 op KA01CKATE02 (study unit)**

### *Lecturers*

Leena Riikonen or Heikki Koskimies

### *Objectives*

Students will be familiar with the categorisation of plant diseases and pests as well as the factors influencing the development/growth and life cycle of them. Students will be competent in identifying plant pests and choosing an appropriate method to destroy them.

### *Content*

- Transmittable and non-transmittable plant diseases and ways to prevent them
- Plant-specific diseases
- Categorisation of plant pests and how they function
- Ways to prevent pests
- Plant-specific pests
- Plant protection and gene technology

### *Literature / Study Material*

- Mäki–Valkama (ed.). 2005. Ajankohtaisia kasvinsuojeluohjeita. 14th or 15th edition. Plant Protection Society.
- Koskimies et al. 1999. Luomupellon kasvinsuojelu. Tieto tuottamaan 84. ProAgria.
- Valkonen, Bremer & Tapio. 1996. Kasvi sairastaa. Oppi kasvitaudeista. University Press.
- Tasapainoinen kasvinsuojelu–oppaat. Plant Protection Society.

### *Learning Methods*

- Lectures: 40 %
- Approved assignments: 30 %
- Approved exam: 30 %

### *Assessment*

- Active participation in lectures
- Approved assignments
- Exam

### *Prerequisites*

Introduction to Plant Protection

### *Languages of Instruction*

Finnish

## **Planning of crop, 3 op KA01CKATE04 (study unit)**

### *Lecturers*

Heikki Harmanen, LSc (Arg. and For.)

### *Objectives*

Students will improve their knowledge and skills in the planning and development of plant production on a farm. They will be competent in using a cultivation planning programme in making notes pertaining to cultivation.

### *Content*

Students will apply advanced skills in utilising a crop management programme, and they will develop the crop production of an operating farm using their previously learned knowledge. Students may make a plan for precision cultivation or for organic cultivation if they so choose. They will also compile a plan for field use. They will select plants and plant species and determine the quality of the crop based on the conditions of the soil and the climate. As regards the cultivation cycle, students will consider issues of plant protection and the possibilities to increase the quality of the crop. Finally, students will compile a cultivation scheme and accounting according to the requirements set by authorities.

### *Literature / Study Material*

- Previously learned and collected material from a farm
- Provided guidelines
- Guidebooks for applying for subsidising from the Ministry of Agriculture and Forestry: Ympäristötuen ja luonnonhaittakorvauksen sitou-tumisehdot ja luonnonmukainen viljely
- Guidebooks for cultivation
- Test results for various plant species

### *Learning Methods*

- Introductory lectures
- Problem-based learning

### *Assessment*

Continuous assessment and final assessment based on midterm reports and assignment

### *Prerequisites*

Students should have the compulsory courses for Crop Production must be completed before taking this course.

### *Further Information*

- One credit for research and development
- One credit for online learning

## **Grassland management, 3 op KA01CKATE05 (study unit)**

### *Lecturers*

- Heikki Harmanen, LSc (Agr.)
- Jussi Esala, LSc (Agr.)
- Agrologist Olavi Koskimäki

### *Objectives*

Students will gain an overall understanding of agricultural grasses, legumes, silage and hay production as regards farming and cattle husbandry. They will be competent in planning and assessing grass/hay cultivation as part of farming operations. Students will be familiar with various techniques for cultivating grass/hay and the nutritional value of grass/hay, as well as the impact of the quantity and quality of the crop. They will also be familiar with the machines used to harvest grass and their impact on the quality of the grass.

### *Content*

- Planning grass/hay cultivation
- Types of grass/hay
- Methods and techniques of cultivating grass/hay
- Hygienic and nutritional quality of grass and hay for grazing
- Storing grass and hay
- Machines for harvesting grass and hay
- Storage

### *Literature / Study Material*

- Nurmenviljely. 2nd edition. 1998. ProAgria.
- Laiduntaminen kannattaa. 2002. ProAgria
- Jaffner. 1991. Lönsammare vallodling. LTs förlag. Stockholm
- Online material from the Finnish Grassland Society
- ARTTURI online service (MTT Agrifood Research Finland and VALIO)
- Other material as indicated

### *Learning Methods*

- Contact teaching: 40 %
- Approved assignments: 40 %
- Approved exam: 30 %

### *Assessment*

- Presentations
- Active participation in lectures
- Approved assignment
- Exam

### *Prerequisites*

Students should have completed the compulsory courses for Crop Production.

### *Further Information*

Students who complete the assignments for the course may continue on to the assignment for the Planning Cultivation course, which will give them a total of 3 + 3 credits.

- One credit for research and development
- One credit for online studies

## **Technology of Plant Production, 6 op KA01CKATE06 (study unit)**

### *Lecturers*

Jussi Esala, LSc (Agr. and For.)

### *Objectives*

Students will acquire knowledge of the more common machines and equipment used in crop cultivation. They will be competent in choosing the most suitable machinery and equipment for a farm. Students will be familiar with the central factors associated with efficient use of agricultural technology. They will be competent in making a mechanisation plan for various types of farms.

### *Content*

- Machines and equipment used in crop production
- Influence of the distance, size and shape of a field on machine efficiency
- Efficiency of machines and equipment and the factors affecting it
- Determining the power requirements of a machine
- Measuring the size of a tractor
- Logistics on a farm
- Purchasing and contracting farm machines and equipment
- Practical assignment

### *Literature / Study Material*

- Tiainen R. (ed.). 2005. Maatilatalouden teknologia.
- Karttunen J. 2004. Maidontuottajien teknologiavalinnat suurissa tuotantoyksiköissä – Karkearehun käsittelyketjut ja karjanhoitotöiden työnmenekki. Työtehoseura publications 394.
- Klemola E. et al. Lohkon koon ja muodon taloudelliset vaikutukset. Työtehoseura publications 386.
- Pentti S. 2006. Peltoliikenteen optimointi. Työtehoseura agriculture bulletin 593
- Karttunen J. et al. 2004. Säilörehun korjuuketjun suunnittelu. Työtehoseura agriculture bulletin 568.

### *Learning Methods*

- Contact teaching: 50 %
- Assignment and other independent study: 50 %

### *Assessment*

- Active participation in practical assignments
- Approved written assignments
- Exam

### *Prerequisites*

- Fundamentals of Agricultural Technology (KA01BTERA02)

### *Further Information*

- One credit for research and development
- One credit for online studies

## **Energy–balance of Farm, 3 op KA01CKATE07 (study unit)**

### *Lecturers*

Jussi Esala, LSc (Agr. and For.)

### *Objectives*

Students will understand the basic concepts of energy and the use of energy and will be competent in utilising those concepts in a professional context. They will gain knowledge of the more common types and properties of fuels used for

living and farming, as well as the terms used to describe fuel quality. Students will gain knowledge of the appropriate type of energy technology for farms and housing in rural areas as well as the technological processes associated with them, such as burning and functions of heat pumps and heat exchangers.

### *Content*

- Concepts of energy
- Use of energy in Finland and in agriculture
- Common features of fuels and types of fuels
- Energy technology in agriculture
- Heating equipment that function through the process of burning
- Heat pumps
- Solar energy technology
- Wind power

### *Literature / Study Material*

- Viirimäki, J. (ed.). 2008. Maatilan hakelämmitysopas. Etelä-Pohjanmaan metsäkeskus Tuulessa on voimaa. Motiva 2003: online publication.
- Lämpöä omasta maasta. Motiva: online publication.
- Lämpöä ilmasta. Motiva: online publication.

### *Learning Methods*

- Contact teaching: 50 %
- Assignment and other independent study: 50 %

### *Assessment*

- Active participation in lessons
- Approved assignment
- Exam

## **Planning of agrobusiness (a virtual course), 6 op KA01CKATE08 (study unit)**

### *Lecturers*

Agronomist Eliisa Kallio

### *Objectives*

Students will understand the main principles of production planning to achieve the best possible economic gain. They will learn how to apply the gross margin method to their planning.

### *Content*

- Managing an agricultural enterprise: entrepreneurship and functioning as an entrepreneur
- Acquiring and analysing information
- Production planning according to the gross margin method
- Determining production alternatives, yield and solvency

### *Literature / Study Material*

- Ryhänen, Sipiläinen & Latukka 2009. Maatalousyrityksen johtaminen ja tuotannon suunnittelu. Handout.
- Ryhänen & Viitala 2003. Virtuaalinen katetuottomenetelmän mukainen taloussuunnitelma.

### *Learning Methods*

- Co-operative learning
- Contact teaching (lectures, group discussions, feedback): 30 %
- Independent study (70 %)

### *Assessment*

- Active participation in group lessons, feedback sessions
- Approved assignment

### *Prerequisites*

Introduction to Economics in Agriculture (KA01BEKO001)

### *Languages of Instruction*

Finnish

### *Further Information*

4 cr for online studies

## **Special crops, 3 op KA01CKATE09 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be familiar with the latest methods and technology for cultivating, harvesting, storing and prepping specialty plants. They will also learn about the factors affecting the amount and quality of the harvest.

### *Content*

- Significance of the latest specialty plants
- Chosen specialty plants and how to cultivate and harvest them
- Factors affecting quality

### *Literature / Study Material*

- Information acquisition from various sources
- Written compositions
- Poster presentations

### *Learning Methods*

- Contact teaching: 45 %
- Approved assignments: 35 %
- Approved exam: 20 %

### *Assessment*

- Active participation in classroom sessions and group work
- Approved assignments and exam

### *Prerequisites*

Cultivation of Field Plants (KA01BKAS005)

### *Languages of Instruction*

Finnish

## **Potato production, 3 op KA01CKATE10 (study unit)**

### *Lecturers*

Heikki Harmanen, LSc (Agr. and For.)

### *Objectives*

Students will familiarise themselves with the various ways of producing potatoes their cultivation techniques. They will also learn about caring for potato plants, plant protection, storage, automation, and postharvest handling for commercial purposes, as well as quality and quantity of the crop, and the factors influencing profitability. In addition, students will also be introduced to production control and regulations as well as research and other related issues.

### *Content*

- The potato as a plant: physiology and quality
- Production control and regulations
- Extensiveness and modes of production
- Potato species and cultivation techniques
- Issues pertaining to plant protection
- Harvesting and storing potatoes
- Preparation for commercial use
- Field-related research

### *Literature / Study Material*

- Ahvenainen et al. 2001. Laatuperunan tuotanto. ProAgria.
- Perunan tuotanto. ProAgria 1992.
- Seppänen et al. (eds.). 1993. Perunan kasvinsuojelu. ProAgria.
- Perunan tasapainoinen kasvinsuojelu. Online publication by the Plant Protection Society
- Kangas e al. 1997. Peltokasvilajikkeet (2008, potato). ProAgria.
- Perunatärkkelyksen tuotannon strategia 2006–2013, ([http://wwwb.mmm.fi/julkaisut/tyoryhmamuistiot/2006/trm2006\\_10.pdf](http://wwwb.mmm.fi/julkaisut/tyoryhmamuistiot/2006/trm2006_10.pdf))
- Other material and webpages as indicated during the course

### *Learning Methods*

- Lectures: 30 %
- Distance learning and field trip: 40 %
- Exam: 30 %

### *Assessment*

- Written exam: 50 %
- Distance learning assignments: 50 %

### *Prerequisites*

The compulsory courses in Plant Production must be completed before taking part in this course.

### *Further Information*

Students may compile a cultivation plan for a farm during the Planning Cultivation course and receive a total of 3 + 3 credits.

- One credit for research and development 1 op virtuaalista
- One credit for online learning

## **Crop yield in plant production, 3 op KA01CKATE11 (study unit)**

### *Lecturers*

- Jussi Esala/Juhani Törmä
- Heikki Harmanen
- Heikki Koskimies
- Anna Tall

### *Objectives*

Students will be knowledgeable of the physiological aspects of the growth of crops and know the right timing for performing various cultivation procedures. They will know how to select different plants and plant species for different conditions and to use the required cultivation techniques. Students will also be familiar with issues pertaining to seed production and the handling and storing of grains and the machines needed for the purpose.

### *Content*

- Physiology and morphology of plants
- Growth of crops and crop physiology
- Plant species
- Seed management
- Seed production, regulation of it and the quality of seed grain
- Selling and buying grains
- Storing and preserving grains and the relevant
- Quality of plant production on a farm

### *Literature / Study Material*

- Alakukku L. et al. 2009. Ravinteet kasvintuotannossa. Tieto tuottamaan 127. ProAgria
- Peltokasvilajikkeet 2008. Tieto tuottamaan 105. Pro Agria
- Online material as indicated by the lecturer
- Literature as indicated by the lecturer
- Material distributed during the lectures

### *Learning Methods*

- Contact teaching: 65 %
- Approved assignments and exam: 35 %

#### *Assessment*

- Active participation in classroom teaching
- Active participation in and completion of assignments
- Approved assignments and exam

#### *Prerequisites*

Cultivating Crops

#### *Languages of Instruction*

Finnish

## **Organic farming, 3 op KA01CKATE12 (study unit)**

#### *Lecturers*

- Leena Riikonen/Heikki Koskimies
- Senja Arkko
- Kimmo Nissinen

#### *Objectives*

Students will be familiar with the procedures and methods of organic farming as well as the opportunities it offers. They will be aware of the factors affecting profitability in organic farming, and they will be knowledgeable of the channels available for marketing organically grown products.

#### *Content*

- Introduction to ecology
- Scope of organic production
- Rules, subsidisation and control of organic production
- Cultivation possibilities of and caring for the soil
- Crop rotation and rotation schemes
- Fertilization in organic cultivation
- Pest protection in organic cultivation
- Financial management and marketing
- Introduction to organic livestock husbandry

#### *Literature / Study Material*

- Rajala, 2004. Luonnonmukainen maatalous. University of Helsinki: Maaseudun tutkimus- ja koulutuskeskus.  
OR
- Källander & Bovin. 1993. Luonnonmukainen maanviljely. Kirjayhtymä.

#### *Learning Methods*

- Lectures: 45 %
- Approved assignment: 20 %
- Approved exam: 35 %

#### *Assessment*

- Active participation in lectures
- Approved assignment
- Exam

#### *Languages of Instruction*

Finnish

#### *Further Information*

1 cr for online studies



## **Vegetable and Berry Production, 3 op KA01CKATE13 (study unit)**

### *Lecturers*

Horticulturist Senja Arkko

### *Objectives*

Students will gain an understanding of the extensiveness and possibilities of outdoor horticulture. They will also learn about cultivation methods and profitability and marketing in the field.

### *Content*

- Cultivating vegetable outdoors + marketing and profitability
- Cultivating garden berries + marketing and profitability
- Methods and procedures in horticulture

### *Literature / Study Material*

- Irma Voipio. 2001. Vihannekset. Lajit, viljely ja sato. Publication 316 of the Puutarhaliitto
- Other material as indicated

### *Learning Methods*

- Lectures: 30 %
- Independent study: 70 %

### *Assessment*

- Active participation in lectures
- Approved assignment and exam

### *Languages of Instruction*

Finnish

## **Nutrient balance in plant production, 3 op KA01CKATE14 (study unit)**

### *Lecturers*

Leena Riikonen, MSc (Agr. and For.)

### *Objectives*

The aim of the course is to familiarise students with the calculation and analysis of nutrient budgets. Students will also acquire skills to develop the nutrient budget of a farm.

### *Content*

- Trade balance
- Field balance
- Livestock and manure balance
- Analysis of balances
- Development of the nutrient budget of a farm

### *Literature / Study Material*

- Ravinnetaseet. 2008. Ympäristötuen lisätoimenpide lannoituksen ja sadon ravinnemäärien seurantaan. Agency for Rural Affairs.
- Myyrinmaa et al. 2001. Ravinnetaseopas. Kestävä kehitys Vantaanjoella. Uusimaa Regional Environment Centre.
- Other material as indicated by the lecturer.

### *Learning Methods*

- Contact teaching: 45 %
- Approved assignment: 20 %
- Approved exam: 35 %

### *Assessment*

- Active participation in lectures and exercises
- Approved assignment
- Exam

#### *Prerequisites*

Students should have completed the compulsory courses in plant production and animal husbandry before taking this course.

#### *Languages of Instruction*

Finnish

## **Bioenergy, 5 op KA01CKATE15 (study unit)**

#### *Lecturers*

- Jussi Esala, LSc (Agr. and For.)
- Risto Lauhanen, DSc (Agr. and For.)

#### *Objectives*

Students will understand the importance of bioenergy as a part of the current and future energy policy in Finland and globally. Students will be familiar with the production process of bioenergy, logistics and the more common uses of bioenergy in Finland. They will be competent in planning and critically evaluating energy alternatives and technology for a bioenergy plant for a farm.

#### *Content*

- Bioenergy policy
- Energy and carbon balance
- Bioenergy alternatives and their associated technologies for production and use
- Entrepreneurship in bioenergy

#### *Literature / Study Material*

- Pakkala K. et al. 2009. Peltobiomassat globaalina energianlähteenä. MTT Agrifood Research Finland publications 137. Online publication.
- Knuuttila K. (ed.). 2003. Puuenergia. Jyväskylän Teknoliakeskus OY.
- Teräsväinen H. (ed.). 2006. Maatilyrityksen bioenergian tuotanto. ProAgria, Tieto tuottamaan 115.
- Viirimäki J. (ed.) 2008. Maatilan hakelämmitysopas. Etelä-Pohjanmaan metsäkeskus Lämpöä puusta puhtaasti ja uusiutuvasti: pellettilämmitys. Motiva 2009. Online publication.

#### *Learning Methods*

- Contact teaching (50 %)
- Assignment and other independent study (50 %)

#### *Assessment*

- Active participation in lessons and field trips
- Approved assignment

#### *Prerequisites*

Agricultural Energy Technology (KA01CTEK002)

#### *Further Information*

Online studies: 2 cr

## **AgroAutomation in Plant Production, 5 op KA01CKATE16 (study unit)**

#### *Lecturers*

- Jussi Esala, LSc (Agr. and For.)
- Juhani Törmä BSc (Agr. and For.)

#### *Objectives*

Students will be introduced to wireless data transfer, satellite positioning, and automation. They will be familiar with the more common types of controls, how they work and their components. Students will be competent in making

adjustments using an instruction manual and in giving reasons for the adjustments made.

### *Content*

- Introduction to control system technology
- How to operate control devices and their components
- ISOBUS terminal technology
- Demonstrations of the automation of farming equipment and devices
- Precision farming technology
- Data transfer and data control technology used in the cultivation process and farming technology

### *Literature / Study Material*

- Tuure V–M. & Suomi P. 2008. Maatalouskoneiden viljelijää palveleva automaatio. Työtehoseura Institute bulletins 608
- Other material as indicated during lessons

### *Learning Methods*

- Contact teaching: 40 %
- Assignment and other independent study: 60 %

### *Assessment*

- Active participation in lessons
- Approved assignment
- Exam

### *Prerequisites*

Introduction to Agricultural Technology (KA01BTEKO002)

## **FoodStaff –industries, 40 op KA01CELTU (study entity)**

**Objectives:** Students will become familiar with the field of food production and the business and technology in the field. The primary goal is for students to acquire knowledge and skills pertaining to the entire chain of business in the food industry. **Contents:** This line of specialisation comprises the following courses: KA01CLIO01, KA01CLITO02, KA01CLITO03, KA01CLITO07, KA01CLITO08, KA01CLITO09, and KA01CLITO10. In addition, students are required to choose courses in the Degree Programme in Food Processing and Biotechnology to include in their Personal Study Plan.

## **Swedish for polytechnic studies, 3 op KA01CVAL01 (study unit)**

### *Objectives*

Students will reinforce and diversely improve their communication skills in the Swedish language before beginning the language studies in their chosen degree programme. Upon completion of the course, students will have command of the essential structures of Swedish and will have expanded their vocabulary. They will be competent in handling everyday situations in Swedish. They will develop a positive attitude toward the improvement of their language skills in general.

### *Content*

- Practice of basic structures
- Oral exercises
- Listening comprehension
- Essays

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Classroom teaching
- Written and oral exercises
- Exercises on computer

### *Assessment*

- Active participation in lessons
- Written and oral exercises
- One written exam

*Further Information*

NB! Students will receive credit for the course if it is a part of their Personal Study Plan.

## **English for polytechnic studies, 3 op KA01CVAL02 (study unit)**

*Lecturers*

John Pearce

*Objectives*

Students will reinforce and diversely improve their communication skills in the English language before beginning the language studies in their chosen degree programme. Upon completion of the course, students will have command of the essential structures of English and will have expanded their vocabulary. They will be competent in handling everyday situations in English. They will develop a positive attitude toward the improvement of their language skills in general.

*Content*

- Review/expansion of basic structures
- Review basic vocabulary
- Oral exercises
- Listening comprehension

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

- Classroom teaching
- Written and oral exercises

*Assessment*

- Active participation in lessons
- Written and oral exercises
- Written exam

*Further Information*

NB! Students will receive credit for the course if it is a part of their Personal Study Plan.

## **Introduction to mathematics, 3 op KA01CVAL03 (study unit)**

*Lecturers*

Sarita Ventelä, MA

*Objectives*

The purpose of the course is to provide students with the readiness they need to solve mathematical problems in their work and studies.

*Content*

- Basic calculations
- Estimations
- Fractions
- Percentages
- Power and roots
- Equations

*Literature / Study Material*

Material distributed during lectures.

*Learning Methods*

- Lectures

- Assignments
- Independent study
- Contact teaching: 50 %

#### *Assessment*

Students are required to participate actively in the lectures. There is a minimum attendance of 80 %/final. They are also required to successfully complete at least 50 % of the assignments given during the lessons. All parts of the course must be successfully completed to receive a grade. At the beginning of the course, students will be tested on their command of basic mathematics skills. Fifty per cent of the answers must be correct to pass the test. Students who successfully pass the test will be entitled to begin the mathematics course directly. Those who fail the test participate in the contact teaching as usual and complete the course according to the above-mentioned requirement level.

### **English conversation, 3 op KA01CVAL04 (study unit)**

#### *Lecturers*

John Pearce

#### *Objectives*

Students will have command of English needed in verbal communication and various situations.

#### *Content*

- Small talk
- Discussions in small groups about current affairs
- Games
- Oral presentations and exercises
- Computer exercises

#### *Literature / Study Material*

- Promotor 5. Computer-based programme for teaching languages
- Material provided by the teacher

#### *Learning Methods*

- Verbal exercises in small groups
- Role play
- Group work
- Presentations
- Computer exercises
- Independent study

#### *Assessment*

- Active participation in class work
- Continuous assessment

#### *Prerequisites*

English

### **Organic animal husbandry, 3 op KA01CVAL05 (study unit)**

#### *Lecturers*

To be announced.

#### *Objectives*

Students will be competent in planning the organic husbandry of domestic animals with consideration of current guidelines and regulations.

#### *Content*

- Introduction to organic domestic animal husbandry
- Guidelines and regulations for organic domestic animal husbandry

#### *Literature / Study Material*

- Andersin et al. 1998. Kotieläintilan luomuopas. Tieto tuottamaan 78.
- Guidelines for organic domestic animal husbandry
- Granstedt et al. 1998. Ekologiskt lantbruk: växtförädling, djurhållning, trädgård, ekonomi: fördjupning. NoK/LT. Stockholm. Pages 97–262.

### *Learning Methods*

- Lectures: 60 %
- Approved assignments and exam: 40 %

### *Assessment*

- Active participation in lectures
- Approved assignments
- Exam

### *Prerequisites*

Introduction to Organic Farming

### *Languages of Instruction*

Finnish

## **Ecological plant husbandry, 3 op KA01CVAL06 (study unit)**

### *Lecturers*

Leena Riikonen, MSc (Agr. and For.)

### *Objectives*

Students will have command of the cultivation techniques needed to grow the more common types of crops and know how to make a plan for growing organic crops for a real farm. Students will familiarise themselves with the production guidelines organic crop cultivation and with the required documentation.

### *Content*

- Cultivation techniques for growing organic crops
- Current issues in organic crop cultivation
- Guidelines and documentation pertaining to organically grown crops
- Organic crop plan

### *Literature / Study Material*

- Ansalehto et al. 2000. Luomuviljan tuotanto. Tieto tuottamaan 86.
- Rajala. 2004. Luonnonmukainen maatalous. University of Helsinki: Maaseudun tutkimus- ja koulutuskeskus. OR
- Källander & Bovin. 1993. Luonnonmukainen maanviljely. Kirjayhtymä.
- Koskimies et al. (eds.). Luomutilan valkuaiskasviopas 2007.
- Luonnonmukaisen tuotannon ohjeet. Kasvintuotanto 2007. Kasvintuotannon tarkastuskeskus.
- Other material as indicated.

### *Learning Methods*

- Lectures: 40 %
- Approved assignments: 30 %
- Approved exam: 30 %

### *Assessment*

- Active participation in lectures
- Approved assignments
- Exam

### *Prerequisites*

Introduction to Organic Growing (KA01CLUO001)

### *Languages of Instruction*

Finnish

*Further Information*

One credit for research and development

**Animal husbandry special practicals, 2 op  
KA01CVAL07 (study unit)**

*Lecturers*

Rönkä Teija

*Objectives*

Students will expand and deepen their knowledge of how to care for domestic animals and of Finnish livestock husbandry.

*Content*

The course content is similar to that of the Basic Knowledge and Skills in Livestock Husbandry course.

*Literature / Study Material*

Material provided by the lecturer.

*Learning Methods*

- Group learning on the school's farm: 50 %
- Visits to other farms: 25 %
- Independent study: 25 %

*Languages of Instruction*

Finnish

**PC-based taxation planning, 2 op  
KA01CVAL08 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will learn to use the more common taxation programmes for planning a farm's taxation and when filling out annual tax forms.

*Literature / Study Material*

To be announced during lectures.

*Learning Methods*

Learning by doing through case studies and various programmes.

*Assessment*

Completed exercises

*Prerequisites*

Farming and Taxation

*Further Information*

One credit for research and development

**From order to delivery, 3 op  
KA01CVAL09 (study unit)**

*Lecturers*

- Margit Närvä, DSc (Tech.)
- Guest lecturers

*Objectives*

Students will be familiar with the concepts associated with internal and external logistics. They will be familiar with problems associated with the order–delivery chain, and they will understand its development. The course is especially suitable for those students specialising in food production.

*Content*

- Concepts associated with logistics
- Production control
- Order–delivery chain from the viewpoint of a rural enterprise
- Other course content will be added at a later date

#### *Literature / Study Material*

Material as indicated during lectures.

#### *Learning Methods*

- Lectures
- Assignments

#### *Assessment*

- Exam
- Assignments

### **Marketing of farm products and supplies, 2 op KA01DEKON10 (study unit)**

#### *Objectives*

Students will become familiar with the structure of agricultural commerce, the more significant product groups, as well as the distinctive features of agricultural commerce.

#### *Content*

- Marketing and purchasing systems in agricultural commerce
- Logistics
- Machine and garden business
- Fodder and grain business

#### *Learning Methods*

- Lectures: 60 %
- Approved exam: 20 %
- Independent study: 20 %

#### *Assessment*

- Active participation in lectures
- Exam

#### *Languages of Instruction*

Finnish

### **Master Assistant training, 3 op KA01CLII014 (study unit)**

#### *Objectives*

Students will increase their knowledge of the various product groups in agricultural commerce and familiarise themselves with sales and customer service.

#### *Content*

- Training in sales and customer service
- Seasonal financing
- Installment purchases
- Production goods business
- Grain and seed business
- Machines, tractors and harvesters

#### *Learning Methods*

- Online material
- Assignments

#### *Assessment*



- Approved assignments (4/6 assignments)

Students will receive the mestarimyyjä certificate (K Institute).

*Languages of Instruction*  
Finnish

## **Environment and rural enterprises, 32 op** **KA01CYMP (study entity)**

Objectives: Students will further their knowledge of the rural environment. They will be familiar with the legislation pertaining environmental management and understand the relationship between the environment and society. Students will be competent in analysing the environmental impact of farms and rural areas and will be familiar with the ways that impact can be reduced. Contents: The Rural Environment Module is described in more detail at <http://ops.seamk.fi/fi/2008–2009/koulutusohjelmiaikoskevattiedot/?dprog=MAELINK&curric=2008>

## **FREE CHOICE STUDIES, 15 op** **KA01DVVO (study entity)**

Students may choose 15 ECTS worth of courses according to their interests. They may choose the courses from the selection of elective courses at the Seinäjoki University of Applied Sciences ([intra.seamk.fi](http://intra.seamk.fi)), or from the selection of elective courses at the School of Agriculture and Forestry in Ilmajoki. Taking courses from the selection of elective courses in other educational establishments, which are at the same level or higher as the university of applied sciences, is also possible.

## **PRACTICAL TRAINING, 50 op** **KA01EH (study entity)**

The purpose of practical training is to deepen students' professional knowledge and skills and to assist them in finding work with field-related employers.

## **Farming practice, 30 op** **KA01EMHARJ (study entity)**

The purpose of practical training is to provide students with the opportunity to acquire practical foundation for furthering their knowledge and skills needed to complete their UAS degree. Upon completion of the practical training, students will be competent in working on an ordinary family farm using effective, safe and ecological working methods. They will also possess skills in planning and management. The purpose of the practical training book and completion of calculations is to teach students about production and production control on a farm and to provide them with skills needed to plan production and finances.

## **Specialisation practice, 20 op** **KA01EEHARJ (study entity)**

Students may do their practical training in rural industries in Finland or abroad. The aim of the practical training is to provide students with an opportunity to acquire international work experience and to support the goals of internationalisation.

## **FINAL THESIS, 15 op** **KA01FOPNÄYT (study entity)**

Objectives: Students will complete a final thesis on a topic associated with rural industries such that the work supports their professional specialisation in the best possible way. The purpose of the thesis is to give students the opportunity to apply their knowledge of solving problems in the working world using existing information and research results and doing practical research themselves. Students will present their thesis work both in writing and as an oral presentation and in so doing will indicate they are capable of presenting information clearly and consistently. Students are required to present their thesis plan(s) at least 10 weeks before the thesis deadline. Maturity Test: According to Section 10 of the law pertaining to universities of applied sciences (No. 256/1995), students who wish to complete a degree at the university of applied sciences level must complete a Maturity Test. The test is an integral part of the thesis and it is written on a topic pertaining to the thesis. The Maturity Test allows students to validate their knowledge of their chosen professional field and to show they are competent in the Finnish or Swedish languages. Thesis advisors provide students with two topics (titles), one of which they choose to write about. Students must indicate they are able to express themselves clearly using academic-style language and terminology associated with the field of rural industry. The contents of the text should correspond to the requirements of level of education. The Maturity Test should be about 2–4 pages long and written in pencil on ever other line. A lecturer of the Finnish language and thesis advisor grade the test on a pass/fail basis.

# Degree Programme in Automation Engineering (In Finnish)

## SPECIALISATIONS

Machine Automation

## QUALIFICATION AWARDED

Bachelor of Engineering

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Learning by doing is an age-old concept used to describe a method of in-depth learning. For this reason, teaching in the Degree Programme in Automation Engineering emphasises hands-on learning. This means that we combine theoretical information with practical skills for the working world in modern technology laboratories. Students experience great moments of insight doing a diverse range of assignments in our laboratories. The equipment in our laboratories is the same used in the working world. This allows students to routinely solve practical problems and acquire the readiness they need to work in the field. Moreover, designing, automating and using machines and devices with a team is fun.

In addition to skills in problem solving, the working world requires that employees are able to work with others and commit themselves to life-long learning. For this reason, teaching involves much group work and working in pairs. There are also visits by experts in the field, various assignments, projects, visits to various companies and trade fairs, as well as practical training in authentic working environments.

## PROFILE OF THE PROGRAMME

Automobile manufacturer Henry Ford set the pace for today's automation with his rule of the three S's: simplify, standardize, and specialize. This was the spark that ignited the intense manufacturing of the automobile. Today, all industrial manufacturing strives to abide by this same rule. Automation engineers, however, have yet one more ace up their sleeves, i.e. soul. By adding intelligence to a control system, you get an easy-to-use device that meets the needs of customers.

The engineers that graduate from our Degree Programme in Automation Engineering possess diverse expertise in machine automation. They create intelligent machines/devices and production lines using modern methods. Our inter-technological programme comprises study modules in Automation, Electrical and Machine Design, Control Systems and Programming, and Robotics. Designs acquire substance through modelling, visualisation and simulation in our "virtual cave".

The engineers who graduate from the Degree Programme in Automation Engineering possess a comprehensive understanding of how an automated machine or system works. They are aware of the advantages of automation, electrical and mechanical design, as well as the limitations involved. They know how to program control systems (programmable logic), i.e. to add intelligence to a device being automated.

All of the designing, such as electrical designing, programming, machine designing, robot and factory simulation, is carried out utilising the latest computer programmes. Utilising virtual technology in the designing stages reduces mistakes in the implementation stages.

Upon completion of the degree programme, our engineers will have worked extensively with robots. They will know the types of robots to use for assembly, stacking, welding and dressing. Automation engineers know how to program robots to incessantly carry out duties designed for them. Automation engineers also have command of the principles of programming computerized machining devices (CNC machines).

## KEY LEARNING OUTCOMES

*Electrotechnical and other basic competence*

An Automation Engineer (UAS)

- \* is able to apply mathematical methods and tools to describe field-related phenomena and to solve problems.
- \* is familiar with the laws of physics significant to the field, especially with regard to electromagnetic phenomena.
- \* has knowledge of the components of electromagnetism and basic connections for automation, electrical and mechanical technology.
- \* commands the basic measurements of electrotechnology.
- \* commands basic ICT skills

### *Design competence*

An Automation Engineer (UAS)

- \* knows the methods and tools of hardware and software design in automation.
- \* is able to dimension and select devices and components using techno-economic principles.
- \* is able to produce standardized documentation.
- \* understands the significance of standards and is able to utilise them in all phases of designing.
- \* understands the significance of the quality system.
- \* understands the life cycle of a product.

### *Competence in electricity and equipment safety*

An Automation Engineer (UAS)

- \* has knowledge of the laws and other regulations concerning safety when working with electricity and machines in the field and is able to apply them in practice.
- \* has a positive attitude toward the compliance with and development of safe work methods.

### *Competence in business and production management*

An Automation Engineer (UAS)

- \* understands what is needed to run comprehensive business operations, to plan financial matters and to utilise the tools needed for financial management.
- \* commands the skills needed in project management, human resources management and the management of processes.
- \* is familiar with the principles of entrepreneurship, marketing and services.

### *Competence in basic circuits*

An Automation Engineer (UAS)

- \* is able to design circuits for measurement, control, valves and motors.
- \* knows the theory of conventional feedback control circuit.
- \* is able to perform process experiments, draw basic models for process dynamics and to use PID control circuit tuning methods.
- \* is able to implement measurement, control, valve and motor circuits on the software and hardware level.

### *Competence in processes, machines and systems*

An Automation Engineer (UAS)

- \* is familiar with the typical production processes and machinery.
- \* is familiar with the essential sensors, transmitters and regulating units used in various processes.
- \* is familiar with the structure and maintenance of control systems.
- \* is able to implement control applications using programmable logic and process control systems.
- \* knows the HW and SW design of automation systems from the definition to the implementation.

## **OCCUPATIONAL PROFILES**

Jobs for professionals possessing numerous areas of expertise do not rest with just one employer. Our diverse training in the fields of automation, electricity and machinery opens up new job opportunities in a world that ever-increasingly depends on technology. For this reason, the job situation for automation engineers is excellent on both the national and international levels. Job titles include designer, technical expert, production manager, sales manager, purchasing manager, etc. Graduates may also work in teaching and as independent entrepreneurs.

## **ACCESS TO FURTHER STUDIES**

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in automation technology. (University of applied sciences act 351/2003, in Finnish)

## **COURSE STRUCTURE**

The courses in the degree programme are available at AUTE 2009 (Specialisation in Machine Automation), 240 cr (1.9.2009)

## **EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

## **CONTACT PERSONS**

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Student counsellor: Ms Pia-Mari Riihilahti, tel. +358 40 830 2355, e-mail: pia-mari.riihilahti@seamk.fi, or Mr Ismo Tupamäki, tel. +358 40 830 7484, e-mail: ismo.tupamaki@seamk.fi

Additional information: <http://www.seamk.fi/automaatiotekniikka>

## Degree Programme in Automation Engineering (In Finnish) (1.9.2009) AUTE 2009 (Machine automation)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KL25AA	<b>BASIC STUDIES</b>					<b>60</b>
KL25AA10	<b>Supporting studies</b>					<b>3</b>
KL25AA10010	Introduction to technical studies	x				1
KL25AA10110	Research methods			x		2
KL25AA20	<b>Languages and communication</b>					<b>18</b>
KL25AA20000	English 1	x				3
KL25AA20100	English 2		x			3
KL25AA20200	English 3				x	3
KL25AA20300	Swedish			x		3
KL25AA20400	Communication and negotiation skills 1	x				3
KL25AA20500	Communication and negotiation skills 2			x		3
KL25AA31	<b>Mathematics</b>					<b>18</b>
KL25AA30110	Algebra and trigonometry	x				4
KL25AA30210	Vectors and analytic geometry	x				3
KL25AA30200	Differential and integral calculus		x			3
KL25AA30500	Computer aided mathematics		x			4
KL25AA30150	Mathematics of automation technology			x		4
KL25AA32	<b>Physics</b>					<b>15</b>
KL25AA30350	Mechanics	x				3
KL25AA30400	Electricity and magnetism	x				3
KL25AA30000	Wave motion and modern physics	x				3
KL25AA30450	Thermophysics		x			3
KL25AA30300	Laboratory assignments in physics		x			3
KL25AA40	<b>Information technology</b>					<b>6</b>
KL25AA40000	Micro computer technology	x				3
KL25AA50101	Office applications	x				3
KL25AB	<b>PROFESSIONAL STUDIES</b>					<b>120</b>
KL25AB10	<b>Basics of professional studies</b>					<b>31</b>
KL25AB10000	Basics of automation	x				3
KL25AB10050	Basics of digital technology	x				3
KL25AB10100	Electronic components		x			3
KL25AB10151	Human resources management				x	3
KL25AB10201	Basics of programming 1		x			3
KL25AB10250	Programmable logic controllers	x				3
KL25AB10300	Electrical safety	x				2

KL25AB10350	Industrial economics	x				3
KL25AB10401	Electrical engineering	x				5
KL25AB10451	Basics of programming 2		x			3
KL25AB20	<b>Professional studies modules</b>					<b>89</b>
KL25AB30	<b>Manufacturing technology</b>					<b>9</b>
KL25AB30000	Basics of materials and manufacturing technology	x				4
KL25AB30100	Laboratory assignments in NC technology			x		3
KL25AB30200	Computer aided manufacturing			x		2
KL25AB40	<b>Mechanics</b>					<b>10</b>
KL25AB40000	Machine elements			x		4
KL25AB40100	Systems of mechanization			x		3
KL25AB40200	Statics		x			3
KL25AB50	<b>Machine design</b>					<b>18</b>
KL25AB50001	Hydraulics and pneumatics		x			5
KL25AB50100	Machine and equipment design			x		4
KL25AB50201	Strength of materials 1			x		4
KL25AB50300	Mechanical drawing and CAD	x				5
KL25AB60	<b>Electronics</b>					<b>6</b>
KL25AB60100	Electronic circuits		x			3
KL25AB60200	Power electronics				x	3
KL25AB70	<b>Programming of automation systems</b>					<b>20</b>
KL25AB70000	Laboratory assignments in automation 1		x			4
KL25AB70100	Laboratory assignments in automation 2			x		4
KL25AB70200	Machine automation 1		x			4
KL25AB70300	Machine automation 2			x		4
KL25AB70400	Robotics			x		4
KL25AB80	<b>Project studies</b>					<b>8</b>
KL25AB80000	Special course in automation			x		4
KL25AB80100	Project work in automation			x		4
KL25AB90	<b>Design of control system</b>					<b>18</b>
KL25AB90400	Electrical CAD		x			3
KL25AB90000	Sensor technology	x				3
KL25AB90100	Drive technology			x		5
KL25AB90200	Laboratory assignments in control systems		x			3
KL25AB90300	Design of electrical and automation system		x			4
KL25AC	<b>FREE-CHOICE STUDIES</b>					<b>15</b>
KL25AD10	<b>THESIS</b>					<b>15</b>
KL25AD10000	Thesis				x	15
KL25AE20	<b>PRACTICAL TRAINING</b>					<b>30</b>
KL25AE20000	Practical training				x	30

## Study Descriptions

### **BASIC STUDIES, 60 op KL25AA (study entity)**

The purpose of the Basic Studies is to provide students with the intellectual and methodological foundation needed to engage in scientific thinking. Basic Studies also provide students with readiness to progress to their professional studies and achieve professional skill.

### **Supporting studies, 3 op KL25AA10 (study entity)**

Supportive Courses develop students' readiness to study at the university of applied sciences level. Central issues discussed in the courses include awareness of students' chosen professional field, study and learning techniques, and information retrieval.

### **Introduction to technical studies, 1 op KL25AA10010 (study unit)**

#### *Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Pia-Mari Riihilahti, MA

#### *Objectives*

This is an introductory course to studying in the field of engineering. The course teaches students proper study methods and helps them to understand the significance of the field.

#### *Content*

- Nature and duties associated with automation engineering
- Structure of the degree programme and degree
- Compilation of a personal study plan
- Familiarisation with and using the library services

#### *Literature / Study Material*

- 2009–2010 curriculum
- Material distributed by the lecturer

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

Active participation in the lectures, exercises, and a written exam

#### *Languages of Instruction*

Finnish

### **Research methods, 2 op KL25AA10110 (study unit)**

#### *Lecturers*

Jorma Mettälä, LSc (Tech.)

#### *Objectives*

Students will acquire skills necessary in data acquisition for their thesis. They will be familiar with various research methods and be able to apply them in their thesis process.

#### *Content*

The course involves the use of the Internet and library and university data bases. Students will be familiar with scientific research methods and know how to apply them to their own thesis.

#### *Literature / Study Material*

To be announced during the lectures.

*Learning Methods*  
Lectures and exercises

*Assessment*  
Approved exercises and examination

*Languages of Instruction*  
Finnish

## **Languages and communication, 18 op KL25AA20 (study entity)**

This module provides students with the skills necessary to communicate with professionals in their chosen field and in other fields. Students will be competent in various communicative situations in both Finnish and a foreign language.

## **English 1, 3 op KL25AA20000 (study unit)**

*Lecturers*  
Anne Vuokila, MA

*Objectives*  
Students will develop their written and oral skills in English. Upon completion of the course, they will be competent in describing in English the type of education and work experience they have, they have and the work they do. Students will also be familiar with the job hunting process and applying for a job. The course also deals with communication and the compilation of basic business letters. Students will also become familiar with texts in the field of automation technology and the terminology associated with the field. They will be competent in using such terminology both when speaking and when writing.

### *Content*

- Effective communication
- Sources of information
- Internet
- Compiling a CV and job application
- Field-related texts
- Oral presentation
- Textbook texts

*Literature / Study Material*  
To be announced at the beginning of the course.

*Learning Methods*  
Oral and written exercises and assignments in pairs and in groups, as well as independent study

*Assessment*  
Active participation in the lectures and assignments, oral presentation, written examination, command of vocabulary and other exercises required during the course

*Languages of Instruction*  
Finnish and English

## **English 2, 3 op KL25AA20100 (study unit)**

*Lecturers*  
Anne Vuokila, MA

*Objectives*  
Students will further their oral and written English skills as well as their skills in communication and business correspondence. They will become familiar with more demanding types of texts and literature in the field of automation technology and be competent in using field-related terminology both when writing and when speaking.

### *Content*

- Business correspondence
- Some terminology associated with business
- Finding information from IT texts and processing it

- Oral and written summaries
- Field-related oral presentation
- Textbook texts
- Trade fairs
- Process descriptions

#### *Literature / Study Material*

- Huhta, Marjatta: Connections: Communication Guidelines for Engineers. Edita. Latest edition.
- Field-related texts and other material

#### *Learning Methods*

Oral and written assignments and exercises in pairs and groups, and independent study

#### *Assessment*

Active participation in the lectures and assignments, oral presentation and written examination, command of vocabulary, and other exercises required during the course

#### *Languages of Instruction*

Finnish and English

### **English 3, 3 op KL25AA20200 (study unit)**

#### *Lecturers*

Anne Vuokila, MA

#### *Objectives*

Students will enhance their oral and written language skills. The course involves the compilation of a summary, learning vocabulary associated with conference technology, and reading and understanding the vocabulary in texts related to the field of automation technology. Upon completion of the course, students will be competent in explaining the basic contents of a field-related text, both orally and in writing, and they will be able to use demanding terminology when speaking and when writing. The course provides students with the readiness to work in multinational projects in foreign company projects during their Project Studies.

#### *Content*

- Reading and writing texts related to technology
- Writing the abstract for a thesis
- Presentations
- Meetings
- Interviews
- Field-related texts
- Textbook texts

#### *Literature / Study Material*

- Mustonen E. & Rautelin J: English Booster for Engineering Students. WSOY.
- Field-related texts and other material

#### *Learning Methods*

Oral and written exercises and assignments in pairs and in groups, as well as independent study

#### *Assessment*

Active participation on the lectures and assignments, oral presentation, written exam, command of vocabulary, and other exercises required during the course.

#### *Languages of Instruction*

Finnish and English

### **Swedish, 3 op KL25AA20300 (study unit)**

#### *Lecturers*

Hanna Mäki-Hallila, MA

#### *Objectives*

Upon completion of the course, students will be competent in actively communicating in Swedish at work. They will also



know how to acquire and use information related to their professional field.

### *Content*

- Education, applying for a job, working
- Work environment and society
- Customer contacts
- General purpose texts
- Basic terminology related to the field

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, listening comprehension, oral and written exercises in pairs and in groups, and independent study.

### *Assessment*

Active participation in the lectures, interim and final examinations.

### *Languages of Instruction*

Finnish and Swedish

## **Communication and negotiation skills 1, 3 op KL25AA20400 (study unit)**

### *Lecturers*

Pia–Mari Riihilahti, MA

### *Objectives*

Upon completion of the course, students will

- understand the structure of the communication process and the factors affecting the process and be able to apply this knowledge to situations in the working world,
- be able to write documents in proper, clear language
- be able to create a standardised document and know the basics of business correspondence,
- know how to write job applications and CVs and how to present themselves in job interviews,
- know how to speak in public and give successful presentations,
- understand how culture influences the communication process, and
- be able to write good academic summaries.

### *Content*

- Structure of the communication process and its significance in the working world
- Teamwork
- Everyday communication at work, standards
- Documents
- Business correspondence
- Job applications, job interviews, and CVs
- Non–verbal communication and the significance of it in presentations
- Book review
- Cultures and communication
- Grammar

### *Literature / Study Material*

Kauppinen A., Nummi J. & Savola T: Tekniikan viestintä. Edita.

### *Learning Methods*

Group work, presentations, oral exercises and written assignments

### *Assessment*

- Active participation in the lessons
- Approved exercises and assignments
- Exam
- All parts must be successfully completed to receive credit for the course.

*Languages of Instruction*  
Finnish

## **Communication and negotiation skills 2, 3 op KL25AA20500 (study unit)**

*Lecturers*  
Pia–Mari Riihilahti, MA

*Objectives*  
Upon completion of the course, students will

- be familiar with the stages of process writing and its advantages
- be able to produce formal written material,
- be able to write clear instructions and specifications,
- know how to write scientific reports, use citations, and creating a bibliography
- have skills in argumentation and debating,
- have command of various situations involving public appearances as well as giving presentations and holding discussions, and
- be competent in holding negotiations and conferences.

*Content*

- Writing instructions and specifications
- Writing proposals
- Reports
- Analysing texts and criticising sources
- Academic writing
- Argumentation
- Presentations
- Negotiations and discussions
- Meetings
- Grammar

*Literature / Study Material*  
Kauppinen A., Nummi J. & Savola T: Tekniikan viestintä. Edita.

*Learning Methods*  
Group work, presentations, oral exercises and written assignments.

*Assessment*

- Active participation in the lessons
  - Completion of written exercises and assignments
  - Exam
- All parts must be successfully completed to receive credit for the course.

*Languages of Instruction*  
Finnish

## **Mathematics, 18 op KL25AA31 (study entity)**

This module provides students with the mathematical skills necessary to solve problems encountered later in their professional studies and in the working world. Students will understand that mathematics are a basic tool used in modelling phenomena encountered in nature.

## **Algebra and trigonometry, 4 op KL25AA30110 (study unit)**

*Lecturers*  
Pasi Mikkonen, PhD

*Objectives*  
Students will understand the mathematical concepts and methods needed to solve mathematical problems in the field of technology.

### *Content*

- Simplification of algebraic expressions and equations
- Trigonometry
- Plane vectors

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and independent study

### *Assessment*

Final exam and calculations

### *Languages of Instruction*

Finnish

## **Vectors and analytic geometry, 3 op KL25AA30210 (study unit)**

### *Lecturers*

Pasi Mikkonen, PhD

### *Objectives*

Students will acquire basic knowledge of vectors and analytic geometry and know how to apply their knowledge to solve problems in the field of technology.

### *Content*

Vectors and analytic geometry

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations, and independent study

### *Assessment*

Final exam and calculations during the course

### *Prerequisites*

Algebra and Trigonometry

### *Languages of Instruction*

Finnish

## **Differential and integral calculus, 3 op KL25AA30200 (study unit)**

### *Lecturers*

Pasi Mikkonen, PhD

### *Objectives*

Students will understand the mathematical concepts and methods as described in the Contents, and they will know how to apply the concepts and methods to solving problems in the field of technology.

### *Content*

One–variable differential and integral calculations

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and independent study

### *Assessment*

Final exam and calculations

### *Prerequisites*

- Algebra
- Geometry
- Functions and complex numbers
- Analytic geometry
- Matrix calculations

### *Languages of Instruction*

Finnish

## **Computer aided mathematics, 4 op KL25AA30500 (study unit)**

### *Lecturers*

Pasi Mikkonen, PhD

### *Objectives*

Students will be competent in using the Matlab programme as a tool for making calculations. They will also understand the advantages and limitations of the programme.

### *Content*

- Using the Matlab programme: calculating mathematical expressions, solving equations and groups of equations, drawing graphs and diagrams, matrices and vectors, processing data, and derivation and integration
- Examples and exercises

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and computer exercises

### *Assessment*

Final exam and the exercises during the course

### *Prerequisites*

- First-year mathematics courses
- Differential and integral calculations

### *Languages of Instruction*

Finnish

## **Mathematics of automation technology, 4 op KL25AA30150 (study unit)**

### *Lecturers*

Pasi Mikkonen, PhD

### *Objectives*

Students will understand the mathematical concepts and methods as described in the Contents, and they will know how to apply the concepts and methods to solving problems in the field of technology.

### *Content*

Mathematical tools needed in professional studies, for example:

- Matrix calculations
- Sequences and series
- Differential equations and Laplace transformation
- Difference equations and Z transformation
- Fourier analyses
- Optimization
- Discrete mathematics
- Probability calculations
- Statistics

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and independent study

### *Assessment*

Written examination, calculations and assignment

### *Prerequisites*

First- and second-year mathematics courses

### *Languages of Instruction*

Finnish

## **Physics, 15 op KL25AA32 (study entity)**

This module provides students with the readiness to understand the physical bases for phenomena encountered in nature. Understanding the laws of physics provides a foundation for designing and implementing new applications.

## **Mechanics, 3 op KL25AA30350 (study unit)**

### *Lecturers*

Jouni Björkman, PhD

### *Objectives*

The aim of the course is to provide students with basic knowledge of physics in engineering and to prepare students for obtaining complex technical expertise encountered in the working world. Students will be competent in solving problems in physics using models (equations between quantities) and presenting their results according to good mathematical and scientific methods.

### *Content*

- Mechanics of rigid objects
- Kinematics
- Dynamics and gravitation

### *Literature / Study Material*

- Hautala et al. Insinöörin fysiikka (AMK) osa 1
- Tekniikan kaavasto, Tammertekniikka.

### *Learning Methods*

Lectures and calculations: at least 80 % attendance required.

### *Assessment*

Students are required to sit a final examination. At least 30 % of the assigned calculations must also be solved to receive credit for the course. Active participation in the lectures and solving at least 30 % of the assigned calculations are prerequisites for retaking a failed final exam. Students who have completed the extensive physics courses (8 courses) in upper secondary school are not bound by the calculation requirements and may merely sit the final examination.

### *Languages of Instruction*

Finnish

## **Electricity and magnetism, 3 op KL25AA30400 (study unit)**

### *Lecturers*

Jouni Björkman, PhD

### *Objectives*

The aim of the course is to provide students with basic knowledge of physics in engineering and to prepare them for learning complex technical expertise needed in further education and the working world. Students will be competent in solving problems in physics using models (equations between quantities) and presenting their results according to good mathematical and scientific methods.

*Content*

- Electrostatics
- Direct current
- Magnetism
- Electromagnetic induction
- Alternating current
- Solid-state physics

*Literature / Study Material*

- Hautala M. & Peltonen H. Insinöörin (AMK) Fysiikka, part 1. latest edition.
- Peltonen H., Perkiö J. & Vierinen K. Insinöörin (AMK) Fysiikka , part 2, Lahden teho–opetus, latest edition.
- Tekniikan kaavasto, Tammertekniikka.

*Learning Methods*

Lectures and calculations: 80 % attendance for the calculation assignments is required to receive credit for the course.

*Assessment*

Students are required to sit a final examination. At least 30 % of the assigned calculations must also solved to receive credit for the course. Active participation in the lectures and solving at least 30 % of the assigned calculations are prerequisites for retaking a failed final exam. Students who have completed the extensive physics courses (8 courses) in upper secondary school are not bound by the calculation requirements and may merely sit the final examination.

*Languages of Instruction*

Finnish

## **Wave motion and modern physics, 3 op KL25AA30000 (study unit)**

*Lecturers*

Jouni Björkman, PhD

*Objectives*

Students will acquire basic knowledge of physics as the basis of technology in the areas discussed in the course. The extent of their learned knowledge will help them in their further studies and the working world. Students will be competent in solving problems in physics using models (equations between quantities) and presenting their results according to good mathematical and scientific methods.

*Content*

- Harmonic oscillating motion
- Undulating motion
- Acoustics
- Optics
- Quantum physics
- Atomic physics
- Nuclear physics

*Literature / Study Material*

- Peltonen H., Perkiö J. & Vierinen K. Insinöörin (AMK) fysiikka , part 2.
- Lahden teho–opetus, latest edition
- Tekniikan kaavasto, Tammertekniikka

*Learning Methods*

Lectures and calculations

*Assessment*

Final examination

*Prerequisites*

- Mechanics
- Theory of Electricity and Magnetism

*Languages of Instruction*

Finnish

## **Thermophysics, 3 op KL25AA30450 (study unit)**

### *Lecturers*

Jouni Björkman, PhD

### *Objectives*

The aim of the course is to provide students with basic knowledge of physics for engineering and to prepare them to learn complex technical expertise needed in further studies and the working world. Students will be competent in solving problems in physics using models (equations between quantities) and presenting their results according to good mathematical and scientific methods.

### *Content*

- Hydrostatics
- Hydrodynamics
- Mechanics of solids and fluids
- Thermophysics
- Thermodynamics

### *Literature / Study Material*

- Hautala, M. & Peltonen, H., Insinöörin (AMK) Fysiikka, part 1. Lahden teho–opetus, latest edition.
- Tekniikan kaavasto, Tammertekniikka.

### *Learning Methods*

Lectures and calculations: 80 % attendance is required to receive credit for the course.

### *Assessment*

Students are required to sit a final examination. At least 30 % of the assigned calculations must also be solved to receive credit for the course. Active participation in the lectures and solving at least 30 % of the assigned calculations are prerequisites for retaking a failed final exam. Students who have completed the extensive physics courses (8 courses) in upper secondary school are not bound by the calculation requirements and may merely sit the final examination.

### *Prerequisites*

Mechanics

### *Languages of Instruction*

Finnish

## **Laboratory assignments in physics, 3 op KL25AA30300 (study unit)**

### *Lecturers*

- Jouni Björkman, PhD
- Pasi Junell, PhD (Technology)

### *Objectives*

Students will acquire basic knowledge of experimental measuring, processing and reporting results as well as how to utilise experimental physics in the various areas of technology. The laboratory studies also develop students' computer skills, language skills and team–work skills. Work in the laboratory enhances and complements what students have learned in their theoretical lessons.

### *Content*

- Laboratory experiments in physics
- Processing measurement results
- miscalculations
- Reporting

### *Literature / Study Material*

Instructions for physics exercises in the laboratory (Seinäjoki University of Applied Sciences, School of Engineering)

### *Learning Methods*

Students work on teams in the laboratory and observe and measure technology–based phenomena associated with physics. They analyse their results and compile reports following the guidelines for writing scientific texts.

### *Assessment*

Completion of laboratory assignments, reports, and a final examination

### *Prerequisites*

- Mechanics
- Theory of Electricity and Magnetism
- Thermo-physics
- Theory of Oscillating Motion
- Modern Physics

### *Languages of Instruction*

Finnish

## **Information technology, 6 op KL25AA40 (study entity)**

This module provides students with readiness needed in utilising the university's information technology tools. Further, students will be familiar with the structure of a PC and its functional aspects in such a way that they will be able keep their own computer up to date.

## **Micro computer technology, 3 op KL25AA40000 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Upon completion of the course, students will be competent in carrying out the processes needed to maintenance computers and expand their functionality.

### *Content*

- Structure of the more common peripheral devices for computers and how they function
- PC structure, processors and connections
- Magnetic and optic memory
- Monitors, voice cards, scanners and printers

### *Literature / Study Material*

- Lähteinen & Pietikäinen: PC–tekniikan käsikirja, Helsinki Media
- Flyktman R. Inside PC–laitetekniikka. IT Press.

### *Learning Methods*

Lectures, exercises and laboratory assignments

### *Assessment*

Exercises, laboratory assignments and an examination

### *Languages of Instruction*

Finnish

## **Office applications, 3 op KL25AA50101 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Students will be familiar with the more commonly used software and computer systems in the university, and they will be competent in using the systems in question. Upon completion of the course, students will be familiar with the basic terminology associated with information technology and be aware of the role of information technology in society, and understand in general how information technology can be applied in their professional field.

### *Content*

- Computer systems at Seinäjoki University of Applied Sciences (Intranet, study register, online learning environment, and equipment)



- Internet and email
- Basic word processing, spreadsheets, databases, and graphics
- Mathematics software
- Creating a home page

#### *Literature / Study Material*

- Juha Paananen, Tietotekniikan peruskirja. Docendo.
- Software handbooks
- Handouts

#### *Learning Methods*

Lectures, exercises, and independent study

#### *Assessment*

Written exam and approved exercises

#### *Languages of Instruction*

Finnish

## **PROFESSIONAL STUDIES, 120 op KL25AB (study entity)**

Professional Studies are divided into Basic Professional Studies and Professional Studies Modules. Professional Studies comprise courses in automation technology which create a foundation for the more in-depth learning that takes place in the Professional Studies Modules. Professional Studies Modules depend on what degree programme and line of specialisation a particular student is studying. The courses in the modules provide students with advanced skills in automation engineering.

## **Basics of professional studies, 31 op KL25AB10 (study entity)**

The purpose of Basic Professional Studies is to create a foundation for more in-depth understanding of the Professional Studies. These courses provide students with specialised skill that they can use during their summer internship, for example. As a rule, students complete the Basic Professional Studies during their first two years of study. Basic Professional Studies are compulsory.

## **Basics of automation, 3 op KL25AB10000 (study unit)**

#### *Lecturers*

Martti Lehtonen, BSc (Eng.)

#### *Objectives*

Students will be able to differentiate between various automation systems, and they will understand how automation systems work. Students will be familiarised with relay and PLC drivers, the more common types of sensors, and the structure, function and connections associated with various devices. They will also be familiar with the idea behind the logic needed in automation technology.

#### *Content*

- Development of automation and automation technology
- What is automation?
- Control and regulation, control systems for automation, sensors, devices, programmable logics, components for a control system
- Common connections for sensors and devices into programmable logics
- Practice making connections as laboratory work
- Familiarisation with various automation control systems in practice

#### *Literature / Study Material*

- Lecturer's material
- Examples from lectures
- Exercises
- Product and programming manuals

#### *Learning Methods*

Lectures, examples, exercises, and group work in the laboratory

*Assessment*

Exercises and a written and practical examination

*Languages of Instruction*

Finnish

**Basics of digital technology, 3 op  
KL25AB10050 (study unit)**

*Lecturers*

- Tuomo Hirvonen, MSc (Eng.)
- Ismo Tupamäki, MSc (Eng.)

*Objectives*

Students will acquire an understanding of digital data and how to use them in designing logical circuits and in programming.

*Content*

- Number systems
- Binary arithmetic
- Codes
- Gate circuits
- Karnaugh map
- Flip-flops
- Registers
- Calculators

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, exercises and computerized simulation

*Assessment*

Exercises and an examination

*Languages of Instruction*

Finnish

**Electronic components, 3 op  
KL25AB10100 (study unit)**

*Lecturers*

Tuomo Hirvonen, MSc (Eng.)

*Objectives*

Upon completion of the course, students will possess basic knowledge of various electronic components and connections as well as how to use the components.

*Content*

- Resistors
- Capacitors
- Inductances
- Diodes
- Transistors
- Operational amplifiers
- Optoelectronic components
- Amplifier connections
- Simulation of connections
- Using data

*Literature / Study Material*

Rae Perälä: Elektroniikka 1. Tietokotka.

*Learning Methods*  
Lectures and exercises

*Assessment*  
An examination and active participation when doing the exercises

*Languages of Instruction*  
Finnish

## **Human resources management, 3 op KL25AB10151 (study unit)**

*Lecturers*  
Lasse Tarhala, MSc (Eng.)

*Objectives*  
Upon the completion of the course, students will possess basic knowledge of operational and strategic human resources management from the point of view of both individuals and the processes involved.

*Content*  
Topics discussed during the course include human resources management today, with a focus on the learning organisation. It also involves discussion about the strategic viewpoints in human resources management and company culture, supervision in changing organisations, situation management and interaction, individuals as part of the work community (motivation, commitment and superior/subordinate dialogs), the development of expertise, collective labour agreements and labour regulations.

*Literature / Study Material*

- Riitta Viitala, Henkilöstöjohtaminen, 2000
- Lecturer's material

*Learning Methods*  
Active participation in the lectures and group work, seminars and approved assignments and a final exam.

*Assessment*  
Written examination and approved assignments: 80/20

*Prerequisites*  
Industrial Economics

*Languages of Instruction*  
Finnish

## **Basics of programming 1, 3 op KL25AB10201 (study unit)**

*Lecturers*  
Hilkka Niemelä, MA

*Objectives*  
Students will have command of the basic structures of programming and structural programme design. They will learn to design, code, document and test small-scale programmes with a console user interface.

*Content*  
Basic structures of programming language: types, expressions, input, output, logical expressions, selection, repetition, and methods.

*Literature / Study Material*  
Material announced by the lecturer.

*Learning Methods*  
Lectures and programming exercises

*Assessment*  
Approved exercises and an exam

*Languages of Instruction*  
Finnish

## **Programmable logic controllers, 3 op KL25AB10250 (study unit)**

### *Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Niko Ristimäki, BSc (Eng.)
- Ismo Tupamäki, MSc (Eng.)

### *Objectives*

Students will understand the prerequisites for the function of automatic machines or systems and the role programmable logic plays (PLC). They will learn about the structure and the function of PLC devices, which are usually used in machine and production automation systems, and the type of logical thinking programming requires. Students will also learn to create sequence-based programmes and simple user interfaces with a touch screen.

### *Content*

- History of automation and information technology
- Taylorism
- Flexible automation systems
- Structure of Omron PLC devices and the CX-One programming environment
- Memory areas, timers, counters, bytes, words, holding relays, sequence-based programming
- Designing and programming a user interface

Students will receive hands-on experience in programming.

### *Literature / Study Material*

Lecturer's material, examples given during class, exercises, the product and programming manuals of various suppliers

### *Learning Methods*

Lectures, examples, exercises, group work

### *Assessment*

Exercises and a practical examination

### *Languages of Instruction*

Finnish and English

## **Electrical safety, 2 op KL25AB10300 (study unit)**

### *Lecturers*

Ismo Tupamäki, MSc (Eng.)

### *Objectives*

Students will be familiar with the qualifications required for working with electricity and acquire the knowledge and skills needed to work safely with electricity. They will be aware of the dangers of electricity and know how to appropriately protect themselves.

### *Content*

- Dangers of electricity
- Electrical Safety Act and Decree
- Protecting against electric shock
- Safety at work
- Installation conditions and environment categories
- First-aid in the event of an accident with electricity
- Basic requirements for working with electricity

### *Literature / Study Material*

- Electrical safety regulations
- D1 handbook concerning electrical installations in buildings
- Standards
- Hand-outs
- Internet ([www.tukes.fi](http://www.tukes.fi))

### *Learning Methods*

Lectures, online learning/assignments

### *Assessment*

Reading package / exam (4)

### *Prerequisites*

- Theory of Electricity and Magnetism

### *Languages of Instruction*

Finnish

## **Industrial economics, 3 op KL25AB10350 (study unit)**

### *Lecturers*

- Jorma Mettälä, LSc (Tech.)
- Lasse Tarhala, MSc (Eng.)

### *Objectives*

Students will gain insight into Finland's national economy, the structure of industry and its clusters, and domestic competitive advantage. The main concepts of business economics, marketing and production operations, and quality management will also be discussed.

### *Content*

The course comprises the following topics:

- Industrial strategy and policies
- Types of enterprises
- Establishing and managing an enterprise
- Leadership
- Economic requirements to run a business
- Essential parameters that illustrate the growth of business, profitability, solvency, and liquidity
- Basic concepts of marketing, human resource and quality management

### *Literature / Study Material*

- Uusi-Rauva E., Haverila M., & Kouri I. 1999. Teollisuustalous. Tammerpaino: Tampere. ISBN 951-96765-2-X.
- Lecture handouts and other material

### *Learning Methods*

Lectures, group work, and exercises

### *Assessment*

Approved exercises and an examination

### *Languages of Instruction*

Finnish

## **Electrical engineering, 5 op KL25AB10401 (study unit)**

### *Lecturers*

Ismo Tupamäki, MSc (Eng.)

### *Objectives*

On completion of the course, students will understand electrical phenomena. They will be competent in mathematically solving basic problems associated with direct current circuits and alternating current circuits. They will also know how to measure electric quantities using various measuring devices.

### *Content*

- Electrodynamics/ DC and AC circuits
- Electrical circuit measurement
- Three-phase systems

- Electrical motors
- Using various measuring devices and gadgets to solve electrical quantities

#### *Literature / Study Material*

- Aura & Tonteri: Teoreettinen sähkötekniikka ja sähkökoneiden perusteet. WSOY
- Lecture hand-outs
- Measuring devices in the laboratory

#### *Learning Methods*

Lectures, calculations and measurements

#### *Assessment*

Exam (interim exam) and calculations

#### *Prerequisites*

- Theory of Electricity and Magnetism

#### *Languages of Instruction*

Finnish

## **Basics of programming 2, 3 op KL25AB10451 (study unit)**

#### *Lecturers*

Hilkka Niemelä, MA

#### *Objectives*

The course provides students with in-depth knowledge of structural programme designing. They will also learn to use graphical user-interface components. Upon completion of the course, students will be competent in programming a small-scale application with a graphic user interface.

#### *Content*

- User-interface components, layouts and connecting transactions to components
- Use of objects

#### *Literature / Study Material*

Material announced by the lecturer.

#### *Learning Methods*

Lectures and programming exercises

#### *Assessment*

Assessment is based on exercises and on an exam.

#### *Prerequisites*

- Basics in Programming 1

#### *Languages of Instruction*

Finnish

## **Professional studies modules, 89 op KL25AB20 (study entity)**

Professional Studies are divided into modules. The modules comprise several courses, all of which are linked to the topic of the module in question. The purpose of the Professional Studies Modules is to provide students with professional competence which involves a profound understanding of knowledge and skill and putting that knowledge and skill to use. As a rule, students begin their Professional Studies in their second year of study.

## **Manufacturing technology, 9 op KL25AB30 (study entity)**

The primary aim of the Manufacturing Techniques Module is to provide students with a clear picture of construction materials used today and how they can be used in various processing environments. Students also learn how to process materials, intended mainly for chipping, into end-products using numerically controlled processing machines.

## **Basics of materials and manufacturing technology, 4 op KL25AB30000 (study unit)**

### *Lecturers*

Markku Kärkkäinen, MSc (Eng.)

### *Objectives*

Students will be aware of the more common construction materials and how they are used. They will understand the reciprocal impact material selection and production methods have on each other. Students will be familiar with the more common production methods and machinery used in the field of engineering and know how to evaluate the suitability of a chosen production method.

### *Content*

- Types of materials and principles of selection
- Internal structure of metals
- Phase diagrams
- Classic thermal processes
- Production of steel
- Standards pertaining to steel
- Properties and use of non-iron metals
- Properties and use of plastics and plastic composites
- Properties and use of construction ceramics
- Overview of production methods
- Casting techniques
- Bonding techniques
- Working with sheet metal
- Metal removing and the machinery needed for it
- Introduction to NC technology and automatic production systems

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Interactive lectures, assignments and seminar presentations

### *Assessment*

- Two interim exams or one final exam
- Approved assignments

### *Languages of Instruction*

Finnish and English

## **Laboratory assignments in NC technology, 3 op KL25AB30100 (study unit)**

### *Lecturers*

- Markku Kärkkäinen, MSc (Eng.)
- Jorma Mettälä, LSc (Tech.)

### *Objectives*

Students will be familiar with the functions and CAD/CAM systems of NC machines. They will be competent in independently using and programming NC machines.

### *Content*

- Types of NC machines and their functions
- Computerized production environment CAD/CAM-systems
- Using an NC machine and safety
- Attachment systems
- Tool systems
- Machining parameters
- G- and M-codes
- Machining co-ordinates
- CAM software and NC programming with a 3D model of a product

Students do programming assignments manually and with the MasterCAM software.

#### *Literature / Study Material*

- Pikkarainen, E. 1999. NC–tekniikan perusteet. Helsinki Hakapaino Oy. pp. 170. ISBN 952–13–0452–9.

#### *Learning Methods*

Lectures, supervised computer work, laboratory work, and an assignment.

#### *Assessment*

- Supervised computer work
- Assignments
- Exam

Active participation is required during the course.

#### *Prerequisites*

- Mechanical Drawing and CAD
- Computer–aided Manufacturing

#### *Languages of Instruction*

Finnish

## **Computer aided manufacturing, 2 op KL25AB30200 (study unit)**

#### *Lecturers*

Jorma Mettälä, LSc (Tech.)

#### *Objectives*

Students will be familiar with the functions of NC machines in today's field of engineering. They will acquire knowledge of NC programming and be able to independently programme numerically controlled (NC) machines.

#### *Content*

- Types of NC machines and their functions
- Computerized production environment CAD/CAM–systems
- Using an NC machine and safety
- Attachment systems
- Tool systems
- Machining parametres
- G– and M–codes
- Machining co–ordinaes
- CAM software and NCprogramming with a 3D model of a product

Students will do assignments using the MasterCAM software.

#### *Literature / Study Material*

Pikkarainen, E. 1999. NC–tekniikan perusteet. Helsinki Hakapaino Oy. pp. 170. ISBN 952–13–0452–9.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

Active participation, assignments, and an examination.

#### *Prerequisites*

- Mechanical Drawing and CAD

#### *Languages of Instruction*

Finnish



## **Mechanics, 10 op KL25AB40 (study entity)**

The Mechanics Module familiarises students with the construction solutions used in general mechanical engineering, and they also learn how to measure and select these solutions. Furthermore, students will learn the basics of how to determine the equilibrium and strain of various components.

## **Machine elements, 4 op KL25AB40000 (study unit)**

### *Lecturers*

Markku Kärkkäinen, MSc (Eng.)

### *Objectives*

Students will be familiar with the functions and ways of measuring machine parts and be competent in applying their knowledge of the strength of materials. They will have command of calculation programmes, which they can use in design.

### *Content*

- Calculating the strength of machine parts
- Fatigue resistance
- Screw couplings
- Power transmission in rotation
- Kinematic analysis of a plane mechanism
- Familiarisation with measurement and calculation programmes

### *Literature / Study Material*

Lecture hand-outs

### *Learning Methods*

Interactive lectures and an extensive assignment

### *Assessment*

- Two interim exams or one final exam
- Approved assignments

### *Prerequisites*

Strength Theory

### *Languages of Instruction*

Finnish and English

## **Systems of mechanization, 3 op KL25AB40100 (study unit)**

### *Lecturers*

Markku Kärkkäinen, MSc (Eng.)

### *Objectives*

Students will be familiar with the features and areas of use of modern solutions for producing linear and rotating movement. They will be competent in selecting the best components and know how to use catalogues and calculation programmes for electrical products.

### *Content*

- Linear motion guide systems, ball-race screws and nuts
- Supporting roles and conveyor roles
- Uses for toothed belts and variable-speed transmission belts
- Phases in mechatronics
- Planetary gears
- Gear motors

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

Interactive lectures and assignments

### *Assessment*

- Two interim exams or one final exam
- Approved assignments

### *Prerequisites*

- Algebra
- Geometry
- Analytic Geometry
- Matrix Calculations
- Differential Calculus
- Integral Calculus

### *Languages of Instruction*

Finnish and English

## **Statics, 3 op KL25AB40200 (study unit)**

### *Lecturers*

Markku Kärkkäinen, MSc (Eng.)

### *Objectives*

Students will be familiar with the laws of statics and be competent in applying what they have learned to a statically defined structure.

### *Content*

- Basic laws of mechanics
- Power distribution in components and combinations of force
- Moment of force in relation to a given point and axle
- Equilibrium of a particle and rigid body
- Determining a component's centre of gravity
- Determining the fatigue of an isostatically supported beam and drawing stress illustrations
- Introduction to the balance of component systems

### *Literature / Study Material*

- Kärkkäinen & Mikkonen. 2006. Insinöörin Mekaniikka. WSOY: Helsinki.

### *Learning Methods*

Interactive lectures and calculations

### *Assessment*

- Two interim tests or one final exam
- Approved exercises

### *Prerequisites*

- Algebra
- Geometry
- Analytic Geometry
- Matrix Calculations
- Differential Calculus
- Integral Calculus

### *Languages of Instruction*

Finnish and English

## **Machine design, 18 op KL25AB50 (study entity)**

The central topics of the Machine Design Module include hydraulic and pneumatic automation systems, calculating the strength of machine parts and actuators, and an introduction to the primary principles of systematic design processing. Students also learn how to make technical drawings and engage in computerized designing.

## **Hydraulics and pneumatics, 5 op KL25AB50001 (study unit)**

### *Lecturers*

Markku Kärkkäinen, MSc (Eng.)

### *Objectives*

Students will learn the operational principles of the main components in hydraulic and pneumatic systems and their design concepts. They will design and build a hydraulic or pneumatic system. Students will have command of the criteria needed to select components for the system and make measurements of it.

### *Content*

- Basics of hydraulic and pneumatic systems
- Pressure current and foot valves
- Structure of hydraulic cylinders, pumps and motors
- Designing, testing and building a hydraulic system
- Introduction to the features of proportional valves and servo-valves

### *Literature / Study Material*

Material distributed by the lecturer.

### *Learning Methods*

Interactive lectures, exercises and laboratory work

### *Assessment*

- Two interim tests or exam
- Students are required to actively participate in the laboratory work to receive credit for the course.

### *Languages of Instruction*

Finnish and English

## **Machine and equipment design, 4 op KL25AB50100 (study unit)**

### *Lecturers*

Jorma Mettälä, LSc (Tech.)

### *Objectives*

Students will acquire knowledge of the stages of machine and equipment design processes and learn to work on product development teams. They will be competent in applying their previous knowledge and skills and the knowledge they learn during lectures to the selection of components for devices, mechanics design, and to produce technical documentation.

### *Content*

- Using ready-made mechanisation units
- Management of a product development project
- Basic principles of construction
- DFMA
- Managing product descriptions
- Machine safety directives
- Ergonomics
- Principles of machine dynamics and mechanisms as applying them in designing

### *Literature / Study Material*

- Lempiäinen J. & Savolainen J. 2003. Hyvin suunniteltu – puoliksi valmistettu. 2003. Hakapaino Oy.
- Pahl G. & W. Beitz. 1990. Koneensuunniteluoppi. WSOY. Porvoo. pp. 610.
- Handouts

### *Learning Methods*

Lectures, exercises during lessons and assignments

### *Assessment*

An examination and assignments

### *Prerequisites*

- Statics
- Strength Theory
- Basics in material and production technology
- Technical drawing and CAD

### *Languages of Instruction*

Finnish

## **Strength of materials 1, 4 op KL25AB50201 (study unit)**

### *Lecturers*

Markku Kärkkäinen, MSc (Eng.)

### *Objectives*

Students will acquire basic knowledge of the elasticity and strength of materials and their application to machine parts and structures.

### *Content*

- Fundamental concepts of the strength of materials
- Stress, changes of form, measurement in conditions of pulling, pressure, shearing, bending and torsional load
- Plane strain
- Combined strain

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and approved exercises

### *Prerequisites*

Statics

### *Languages of Instruction*

Finnish

## **Mechanical drawing and CAD, 5 op KL25AB50300 (study unit)**

### *Lecturers*

Jorma Mettälä, LSc (Tech.)

### *Objectives*

Students will learn to read mechanical drawings and be familiar with the standard symbols used in mechanical drawings. They will also be competent in independently making 3D models, quality product and assembly models, as well as assembly and component drawings. The course provides students with the readiness to create drawings of diagrams, for example for hydraulics and pneumatics, and layouts. In addition, students will learn about the modelling of designer products and CAD in a business environment. They will also gain extensive knowledge of the theory of technical drawing, understand the symbols used in mechanical drawing and be competent in utilising standards.

### *Content*

- Theory of technical drawing
- 3D modelling and general theory of modelling systems
- 3D modelling of products and assembly models
- Drawing planes and sheet metal designing

- Diagrams and their standardised symbols

Students complete given assignments using the Solid Edge 3D–CAD programme.

#### *Literature / Study Material*

Hand-outs and the following literature as assigned by the lecturer:

- Laakko T. et al. 1998. Tuotteen 3D–CAD–suunnittelu. WSOY: Helsinki. pp. 312.
- Hietikko E. 1996. Tietokoneavusteinen tuotesuunnittelu. Otatieto Oy Kirjasarja 567: Helsinki. pp. 238.
- Autio A. & Hasari H. 1999. Koneenpiirustus ammattikorkeakouluille ja teknillisille oppilaitoksille. Otava: Keuruu. pp. 290.

#### *Learning Methods*

Lectures, supervised computer work and assignments.

#### *Assessment*

Assignments and an examination

#### *Languages of Instruction*

Finnish and English

## **Electronics, 6 op KL25AB60 (study entity)**

In the Electronics Module, students will learn about the typical electronic components and circuits used in the automation field. Work in the laboratory teaches students to identify components, measure currents and voltage, and to identify malfunctions.

## **Electronic circuits, 3 op KL25AB60100 (study unit)**

#### *Lecturers*

Tuomo Hirvonen, MSc (Eng.)

#### *Objectives*

Students will acquire basic knowledge of how to electronically connect integrated circuits, and through simulation they will learn how to check the functionality of the connections.

#### *Content*

- Regulators
- Converters
- Amplifiers
- Oscillators
- Various pulse circuits
- Noise and reliability

#### *Literature / Study Material*

Rae Perälä: Elektroniikka II. Tietokotka.

#### *Learning Methods*

Lectures, exercises and simulation

#### *Assessment*

Examination and active participation when doing exercises

#### *Prerequisites*

Electronic Components

#### *Languages of Instruction*

Finnish

## **Power electronics, 3 op KL25AB60200 (study unit)**

#### *Lecturers*

Seppo Stenberg, MSc

*Objectives*

- Use of power components
- Equipment design

*Content*

Teaching involves the use of manufacture guidebooks and brochures for power electronic components and instruments. Students will use these materials to write summaries and complete other assignments and calculations. They will also familiarise themselves with the structure of power electronic instruments and perform simulations and test connections.

*Literature / Study Material*

Online material

*Learning Methods*

Lectures and assignments

*Assessment*

An examination and assignments

*Prerequisites*

- Electronic Components
- Electronic Circuits

*Languages of Instruction*

Finnish

## **Programming of automation systems, 20 op KL25AB70 (study entity)**

The Automation System Programming Module provides students with practical knowledge about configuring and programming machines and machine systems. Automation devices may be single devices or entire communicating systems with the help of industrial channels. Students practice their logical thinking and problem-solving skills.

## **Laboratory assignments in automation 1, 4 op KL25AB70000 (study unit)**

*Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Niko Ristimäki, BSc (Eng.)
- Ismo Tupamäki, MSc (Eng.)
- Martti Lehtonen, BSc (Eng.)

*Objectives*

Students will be competent in configuring and programming control systems (PLC) associated with the automation of bulk goods. They will create automation applications for complex process modules utilizing and testing the knowledge and skills they have learned during their studies.

*Content*

Students complete exercises in the laboratory using a diverse range of automation devices. The software and devices are those that are commonly used in industry, and therefore students are able to apply the experience they have obtained in the laboratory directly to situations in industry. The devices students use include Siemens, Omron and Beckhoff programmable logic controllers, touch-screens, PC monitoring stations, industrial terminals, and RFID (radio frequency identification) sensors. Students also gain experience in using electric motors and pneumatic cylinders.

*Literature / Study Material*

- Material distributed by the lecturer
- Examples presented in the lectures
- Online material for the exercises
- Product and programming manuals

*Learning Methods*

Supervised laboratory assignments

*Assessment*

Approved reports based on the laboratory assignments.

*Prerequisites*

- Programmable Logic Controllers
- Machine Automation 1

*Languages of Instruction*  
Finnish and English

## **Laboratory assignments in automation 2, 4 op KL25AB70100 (study unit)**

*Lecturers*

Niko Ristimäki, BSc (Eng.)

*Objectives*

Students will be competent in configuring and programming control systems (PLC) associated with the automation of bulk goods. They will create automation applications for complex process modules utilizing and testing the knowledge and skills they have learned during their studies. Students will learn how to control movement using frequency converters, short-circuit motors, servoamplifiers, and rotating servomotors. They will also learn how to create data transfer solutions in automation systems, needed in controlling various types of movement, using terminals.

*Content*

Students will practise programming and configuring the control of one axle for a goods-processing station using programmable logic, a servoamplifier, and a rotating servomotor, as well as a frequency converter and a short-circuit motor. Students will also connect several process stations together using industrial terminals (DeviceNet, Ethernet). They also practise communicating through the industrial terminals. Students are also introduced to the Profibus terminal.

*Literature / Study Material*

- Material distributed by the lecturer
- Examples from the lectures
- Online material for exercises
- Product and programming manuals

*Learning Methods*

Supervised laboratory assignments

*Assessment*

Approved, written reports pertaining to the laboratory assignments

*Prerequisites*

- Machine Automation 1
- Machine Automation 2

*Languages of Instruction*  
Finnish and English

## **Machine automation 1, 4 op KL25AB70200 (study unit)**

*Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Niko Ristimäki, BSc (Eng.)
- Ismo Tupamäki, MSc (Eng.)
- Martti Lehtonen, BSc (Eng.)

*Objectives*

Students will be familiar with the structures and functions of the control systems used in machine automation systems. They will be competent in utilising modern programming software and in creating demanding applications with them. They will also have command of several standardized programming languages.

*Content*

- Siemens and Beckhoff programmable logics
- TwinCat and STEP7 tool software

- Structural programming using function blocks, timers, counters, comparisons, analog signals, recipes, RFID technology, and touch screens as interfaces
- Standardized programming languages

Students will engage in hands-on learning of pneumatically and electrically controlled actuators for automation systems using the Beckhoff and Siemens programmable logic and touch screens.

#### *Literature / Study Material*

Lecturers' handouts, examples during lectures, assignments, and the product and programming manuals of various importers.

#### *Learning Methods*

Lectures, examples, assignments and group work

#### *Assessment*

Approved assignments and an exam

#### *Prerequisites*

- Introduction to Automation
- Programmable Logic
- Sensor Technology

#### *Languages of Instruction*

Finnish and English

### **Machine automation 2, 4 op KL25AB70300 (study unit)**

#### *Lecturers*

Niko Ristimäki, BSc (Eng.)

#### *Objectives*

Students will learn to create modern motion control systems using frequency inverters, cage induction motors, servoamplifiers and rotating servo-motors. They will also be competent in creating data transfer solutions for automation systems for various types of motion control systems using fieldbuses.

#### *Content*

- Familiarisation with one-axis motion control of a goods processing station using programmable logic, servoamplifiers and rotating servomotors
- Familiarisation with one-axis motion control using programmable logic, frequency inverters and cage induction motors
- Signals and data transmission solutions commonly used in the communication of the above-mentioned instruments

#### *Literature / Study Material*

Handouts, example from the lectures, assignments, and the product and programming manuals of various manufacturers.

#### *Learning Methods*

Lectures, examples, assignments and group work

#### *Assessment*

Exercises and an examination

#### *Prerequisites*

- Introduction to Automation
- Programmable Logic Controllers
- Machine Automation 1

#### *Languages of Instruction*

Finnish and English

### **Robotics, 4 op KL25AB70400 (study unit)**



### *Lecturers*

Martti Lehtonen, BSc (Eng.)

### *Objectives*

Students will become familiar with various types of robots. They will be competent in inspecting robots and their use in both industrial automation and other areas of robotics. They will be familiar with the structure, features, co-ordinations, and accessories of industrial robots. Students will learn to process and programme industrial robots with on- and off-line programming. The course provides students with the readiness needed to design and select industrial robots, including accessories, for automatically processing products.

### *Content*

- Types of robots, mechanical structure of an industrial robot, control systems, features, co-ordinations, accessories
- Handling the ABB industrial robot and on- and off-line programming
- Handling the Motoma robot with online programming
- Handling robots and programming assignments in the laboratory

### *Literature / Study Material*

- Lecture hand-outs
- Examples during lectures
- Assignments
- Product and programming manuals
- Risto Kuivanen: Robotiikka, Suomen Robottiyhdistys Ry

### *Learning Methods*

Lectures, examples, assignments, and group work in the laboratory

### *Assessment*

- Assignments
- Lab work
- Written exam
- Programming exam

### *Languages of Instruction*

Finnish and English

## **Project studies, 8 op KL25AB80 (study entity)**

Project Studies assist students in developing their skills in obtaining information independently, as well as in planning and scheduling, which are integral parts of project work. The latest topics in the field of automation are linked to Project Studies whenever appropriate.

## **Special course in automation, 4 op KL25AB80000 (study unit)**

### *Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Niko Ristimäki, BSc (Eng.)
- Martti Lehtonen, BSc (Eng.)

### *Objectives*

Students will become familiar with the latest technology in machine or factory automation. They will learn to utilize the technology in designing or in implementing machine automation systems.

### *Content*

The topics discussed during the course vary from year to year; they are announced at the beginning of the course.

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, examples, exercises and group work

### *Assessment*

A practical assignment and an exam

### *Prerequisites*

- Machine Automation 1
- Machine Automation 2

### *Languages of Instruction*

Finnish and English

## **Project work in automation, 4 op KL25AB80100 (study unit)**

### *Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Niko Ristimäki, BSc (Eng.)
- Martti Lehtonen, BSc (Eng.)

### *Objectives*

Students will become familiar with various topics of interest concerning machine automation during a topic-related project. During the project, students will also learn about project management, finding appropriate information independently, and develop their problem-solving skills.

### *Content*

Students may begin discussing their project with the co-ordinating lecturers during the Machine Automation 1 course. At this time, students should have some idea of the topic they wish to do the project on.

### *Literature / Study Material*

The literature varies according to the students' chosen project topic.

### *Learning Methods*

Project work

### *Assessment*

Students must write a report about their completed project and the project and the report will be assessed like a final thesis.

### *Prerequisites*

- Machine Automation 1
- Machine Automation 2

### *Languages of Instruction*

Finnish and English

## **Design of control system, 18 op KL25AB90 (study entity)**

The aim of the Control Systems Module is to introduce to students the phases involved in electrical and automation design. The products of design include practical connections and start-up.

## **Electrical CAD, 3 op KL25AB90400 (study unit)**

### *Lecturers*

Heikki Rajala, BSc (Eng.)

### *Objectives*

Upon completion of the course, students will have command of computer-aided drawing of wiring diagrams used in the field of automation.

### *Content*

- Using the CADS Planner designing programme
- Drawing a principle diagram and a wiring diagram using appropriate software
- Centre diagram applications

- Chart applications
- Centre layout applications

#### *Literature / Study Material*

Lecture material

#### *Learning Methods*

Lectures and exercises with CADS Planner

#### *Assessment*

Exercises and exam

#### *Prerequisites*

- Electric Technology
- Introduction to Automation

#### *Languages of Instruction*

Finnish

### **Sensor technology, 3 op KL25AB90000 (study unit)**

#### *Lecturers*

Martti Lehtonen, BSc (Eng.)

#### *Objectives*

Students will become familiar with the basic types of sensors used in machine automation, how sensors work, the electrical and mechanical properties of sensors and their performance characteristics. They will be competent in choosing appropriate sensors for a given identification or measurement problem. Students will also learn about the electrical connections of sensors and know how to connect them to control devices and terminals.

#### *Content*

- Basics in sensor and measurement technology
- Protection classes
- Bistable sensors
- Detection sensors
- Sensors that measure quantity/magnitude
- Measuring movement
- Laboratory work involving exercises in connecting and measuring

#### *Literature / Study Material*

- Material distributed by the lecturer
- Examples given in the lectures
- Assignments
- product and programming manuals

#### *Learning Methods*

Lectures, examples, exercises, seminar work, and group work in the laboratory

#### *Assessment*

- Exercises
- Laboratory work
- Written exams

#### *Languages of Instruction*

Finnish

### **Drive technology, 5 op KL25AB90100 (study unit)**

#### *Lecturers*

Martti Lehtonen, BSc (Eng.)

*Objectives*

Students will learn about the basic principles and use of electric motors, the functions of direct current motors (DC motors) and alternating current motors (AC motors). Adjustable drives and control system engineering are also discussed. The general aim of the course is to give students a general idea of electric motors as an integral part of automation technology. Upon completion of the course, students will know how to measure and select electric motors and connect them to an electric network.

*Content*

- Basics of control engineering
- PID control blocks
- Controls and tuning control circuits
- Basics of electric motors
- Direct current motors (DC motors)
- Cage-induction motors
- Frequency converters
- Servo-motors
- Servo-controls
- Stepping motors and their controls

Several lessons in the lab: tuning control circuits, connections for motors and motor controls

*Literature / Study Material*

- Lecture material
- Examples during lectures
- Assignments
- Product and programming manuals

*Learning Methods*

- Lectures
- Lecture examples
- Assignments
- Group work in the lab

*Assessment*

- Assignments
- Lab work
- Exams

*Languages of Instruction*

Finnish and English

## **Laboratory assignments in control systems, 3 op KL25AB90200 (study unit)**

*Lecturers*

- Martti Lehtonen, BSc (Eng.)
- Heikki Rajala, BSc (Eng.)

*Objectives*

Students will learn about the basic connections involved in electric and automation technology. They will also become familiar with the construction of an automation system in practice. In addition, they will gain insight into the regulations and technical aspects of installing electrical instruments.

*Content*

During the course, students will construct a small-scale automation system. Automation systems involve mechanics, programmable logic controllers, and various sensors, actuators and motor output.

*Literature / Study Material*

- Material provided by the lecturer
- Examples during the lectures
- Assignments
- Product and programming manuals

### *Learning Methods*

- Lectures
- Examples
- Assignments

### *Assessment* Assignments

### *Languages of Instruction* Finnish

## **Design of electrical and automation system, 4 op KL25AB90300 (study unit)**

### *Lecturers* Matti Lehtonen, BSc (Eng.)

*Objectives*  
Students will learn to read and understand electrical and automation drawings. They will become familiar with computer-based CAD programmes, their features and areas of use for electrical and automation designing. Upon completion of the course, students will possess the readiness needed to create various simple, field-related drawings using CAD software and to select an appropriate way of presenting the drawings.

### *Content*

- Basic knowledge of drawings in electrical and automation technology
- Symbols and drawing techniques
- Using computers in designing
- Designing and drawing general diagrams in the fields of electrical and automation technology
- Familiarisation with the functions in CAD systems

### *Literature / Study Material*

- Lecturer's handouts
- Examples during lectures
- Assignments
- CAD programme

### *Learning Methods*

- Lectures
- Examples
- Exercises

### *Assessment* Assignments

### *Languages of Instruction* Finnish

## **FREE-CHOICE STUDIES, 15 op KL25AC (study entity)**

The purpose of the Elective Courses is to provide students with more advanced knowledge of their Professional Studies. Students may choose Electives from the course offerings at any university of applied sciences or other university. However, we recommend that students choose Electives offered by their degree programme. This way, the chosen Electives are the most appropriate with regard to students' other courses. It is also easier for students to advance in their studies while studying other courses.

## **THESIS, 15 op KL25AD10 (study entity)**

As a rule, students write their final thesis during their fourth year of studies. Students should choose their thesis topic as early as possible, during their internship completed in the autumn of their fourth year of studies at the latest. Students do their thesis as an independent project in design, development, or as a survey. The thesis may also be a part of a more extensive research or development project. The purpose of the thesis is to give students an opportunity to show their competence in independently utilising theoretical information to solve a practical problem. With few exceptions, students

usually do their thesis for an enterprise. This gives students an excellent opportunity to pave their way into the working world and the services of the enterprise for which they have written their thesis.

## **PRACTICAL TRAINING, 30 op KL25AE20 (study entity)**

Practical training is an integral part of studying at the university of applied sciences, and it is a degree requirement. Practical training is not only working, but it is learning while working and applying that which has been learned while studying at the university. Practical training teaches students how to survive in life after the university. It also provides students with the opportunity to gain important contacts with employers and their representatives. The aims of practical training are as follows:

- Students learn to work in the working world as a member of a work community.
- Students learn to apply the knowledge and skills they have learned at the university to practical work.
- Students gain experience in the technical implementations and favourable practices characteristic of their chosen field.
- Students learn about various work methods and phases.
- Students gain experience in carrying out operations economically and responsibly.
- Students develop their social skills and language skills.
- Students' ability to withstand pressure and uncertainty increases.
- Students practice their skills in management.

Students are responsible for obtaining an internship and making a contract with the employer. In this way, the practical training also teaches students the process of applying for a job. During their training, students should discuss possible topics or projects for their final thesis.

# Degree Programme in Business Management (In Finnish)

## SPECIALISATIONS

Tracks: Upon completion of the general studies, students select three 12–credit elective study modules, which allow them to specialise in various fields of business.

## QUALIFICATION AWARDED

Bachelor of Business Administration

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The implementation of the curriculum focuses on experiential learning. Learning begins with concrete experiences upon which students reflect. Self–evaluation is used to understand various phenomena and develop new ways of doing things.

The Basic Studies in business are integrated with the running of an enterprise, and learning is based on practical tasks. The Professional Studies involve planning and research assignments commissioned by a company, case studies and projects.

Studies are flexible and may be conducted as part of a project in accordance with student's personal curriculum. It is also possible for students to integrate their studies in the development of their own enterprise. Students may also complete some studies online, in which case the requirements for completing a course may differ to those described in the Study Guide.

The final thesis enables students to apply the knowledge and skills they have learned during their studies to practical problem–solving situations and the business development.

## PROFILE OF THE PROGRAMME

The purpose of the degree programme is to provide students with a diverse range of skills in business operations, especially with regard to small– and medium–sized enterprises. During their first and second years of study, students learn about the foundations of business management and acquire skills to work in the various areas of business.

After students have completed the general studies, they choose between a number of lines of specialisation (see below), which provide them with the knowledge and skills they need to work as experts in a specific area of business in Finland and abroad. Students are required to choose three modules worth 12 credits per module.

The *Marketing Modules* provide students with the knowledge and skills they need to plan, and develop marketing in a multi–faceted way. Students may also concentrate on issues pertaining to retail trade.

The *elective Accounting Modules* develop students' skills to maintain and develop information systems that support management and decision–making. Students also acquire knowledge and the ability to utilise methods for financial planning, decision–making and management.

The *Human Resources Management Module* prepares students to work in job positions where expertise in human resources is needed.

The *Entrepreneurship Module* provides students with a deep understanding of entrepreneurship and the development of business practices in SME businesses.

The *International Business Module* allows students to learn about international business together with students from partner institutions in Europe and on other continents.

Students may also choose *Electronic Business* studies and learn about the implementation and development of online business websites.

## KEY LEARNING OUTCOMES

In addition to the general competences specified for university of applied sciences degrees, there are field–specific competences defined for the Degree Programme in Business Management, which are founded on the national definitions for competence.

*Comprehensive business competence*

A Bachelor of Business Administration

- \* is able to identify and describe the core processes of an enterprise and understands the interaction between the different areas of business economics
- \* understands the interaction between business operations and the operational environment and adopts an entrepreneurial approach to doing business
- \* understands the principles of profitable business operations and is able to analyse business operations and risks
- \* understands the impact of an individual on the operations of a company or organisation and can achieve results in his/her work
- \* understands the significance of communication and ability to actively create interactive relationships between both internal and external interest groups also in the global business environment

*Specialised business competence*

A Bachelor of Business Administration

- \* has in-depth knowledge of a specialised area of business (marketing, accounting, business administration and entrepreneurship, online services, international business) in accordance with his/her personal curriculum

*Methodological business competence*

A Bachelor of Business Administration

- \* has a basic knowledge of research and development work required for the acquisition and adoption of in-depth business competence
- \* knows applied business mathematics and statistical methods and knows how to use information systems for these purposes
- \* has a knowledge of the application of qualitative and quantitative research methods

*Applied business competence*

A Bachelor of Business Administration

- \* knows how to apply the theories of business economics and has the ability of creative problem solution, e.g. during one's practical training, project studies, and thesis writing process
- \* knows how to apply the latest business knowledge at the work place
- \* knows how to develop business processes and apply quality-based thinking in one's work.

**ACCESS TO FURTHER STUDIES**

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in business. For second-cycle studies in universities of applied sciences in Finland, three years' work experience is also required (University of applied sciences act 351/2003, in Finnish)

**COURSE STRUCTURE**

The courses in the degree programme are available at LITAKO 2009, 210 cr (1.9.2009)

**EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

**CONTACT PERSONS**

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Student counsellor: Ms Ulla Autio, tel. 020 124 545, GSM 040 830 6067, ulla.autio@seamk.fi

## Degree Programme in Business Management (In Finnish) (1.9.2009)

### LITAKO 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
PERUS	<b>BASIC STUDIES</b>					<b>60</b>
KD07ALOP	<b>Basics of business competence</b>					<b>45</b>



KD07APYR101	Planning a business	x				9
KD07APYR102	Starting up a business	x				9
KD07APYR103	Running a business	x				9
KD07APYR104	Assessing and developing a business	x				9
KD07APKT012	Introduction to economics	x				4
KD07APMT001	Basics of business mathematics	x				5
KD07AKIELET	<b>Language studies</b>					<b>12</b>
KD07AYRU022	Business Swedish	x				3
KD07AYEN022	Business English	x				3
KD07VAKIELI	Alternative language studies	x				6
OPISKPROS	<b>PERSONAL DEVELOPMENT AND STUDY PROCESS</b>					<b>3</b>
KD07AOA001	Study skills and professional growth					3
KD07AITP001	<i>Study skills and professional growth 1</i>	x				1
KD07AITP002	<i>Study skills and professional growth 2</i>		x			1
KD07AITP003	<i>Study skills and professional growth 3</i>				x	1
AMMATTI	<b>PROFESSIONAL STUDIES</b>					<b>93</b>
KD07BLOL	<b>Expanding Business Know-How</b>					<b>37</b>
KD07BHHA012	Company law		x			3
KD07BIB001	Introduction to international business		x			3
KD07B4	<b>Customer orientation in business</b>					<b>6</b>
KD07BMMA105	Customer service as a competitive tool	x				2
KD07BMMA130	Competitive tools in marketing		x			4
KD07B5	<b>Financial and operational planning</b>					<b>6</b>
KD07BLLA010	Interpretation of financial statements		x			2
KD07BLLA011	Introduction to financial management		x			2
KD07BLLA012	Business taxation		x			2
KD07B7	<b>Development of business and personnel</b>					<b>4</b>
KD22CHHA250	Leadership		x			2
KD07CHHA010	Quality and project management		x			2
KD07B8	<b>One of the following three modules is selected</b>					<b>9</b>
KD07BHLÖ	<b>Courses related to human resource management</b>					<b>9</b>
KD07CHHA212	Introduction to human resource management		x			3
KD07BHOI210	Labour law		x			3
KD07BHHA003	Payroll administration		x			3
KD07BTALOUS	<b>Courses related to accounting and financial management</b>					<b>9</b>
KD07BLLA142	Competent book-keeper		x			3
KD07BLOI111	Company law		x			3
KD07CHMA212	Spreadsheet calculation for financial management		x			3
KD07BMARK	<b>Courses related to marketing</b>					<b>9</b>
KD07BMMA002	Management of marketing communication		x			3
KD07DWTT040	Production of Web Pages		x			3
KD07BITI110	Statistical processing		x			3
KD07BKAKSI	<b>Two out of the following courses is selected (can be replaced by a company project)</b>					<b>6</b>

KD07BHHA03	Payroll administration		x			3
KD07BLMT122	Spreadsheet calculation for the purposes of working life		x			3
KD07BITI11	Statistical processing		x			3
KD07BHOI21	Labour law		x			3
KD07DWTT40	Production of Web Pages		x			3
KD07CAOPK	<b>Alternative professional studies</b>					<b>36</b>
KD07CL01	<b>Financial accounting</b>					<b>12</b>
KD07BLLA170	Business taxation		x			3
KD07CLLA100	Personal taxation		x			2
KD07CLE1002	Preparing financial statements		x			4
KD07BLLA240	Auditing of the accounts			x		3
KD07CL02	<b>Management accounting</b>					<b>12</b>
KD07CLLA310	Cost management and result measurement		x			4
KD07CLLA190	Budgeting as a management tool		x			3
KD07CHTA213	Price setting and profitability		x			2
KD07BLLA132	Business management solutions		x			3
KD07CL03	<b>Financial statements and financial analysis</b>					<b>12</b>
KD07CLLA270	Financial Statement Analysis				x	4
KD07CLLA290	Investment and financial planning			x		3
KD07CLLA300	Liquidity management			x		3
KD07BLOI242	Financial law			x		2
KD07CM05	<b>Utilisation of market information</b>					<b>12</b>
KD07BMMA135	Marketing research		x			6
KD07BMMA170	Consumer behaviour		x			3
KD07BMMA111	Customer relationship management			x		3
KD07CM02	<b>Marketing planning and management</b>					<b>12</b>
KD07CMMA002	Marketing plan as a management tool			x		3
KD07BMMA161	Brand management			x		3
KD07BMMA112	Marketing in an international environment			x		2
KD07BMMA300	Financial management of marketing			x		2
KD07DVOI43	Marketing law				x	2
KAUPPA	<b>Retail trade and entrepreneurship</b>					<b>12</b>
KD07BMMA222	Retail business and logistics		x			5
KD07BMMA223	Competitive methods in retail trade		x			5
KD07CMMA220	Personal sales		x			2
KD07CHR001	<b>Personnel management</b>					<b>12</b>
KD07CHHA210	Development of work community		x			3
KD07CHHA251	Knowledge Management		x			4
KD07CHHA211	Special themes of human resource management			x		3
KD07DCCH212	Strategic management			x		2
KH07CH003	<b>Entrepreneurship and working as an entrepreneur</b>					<b>12</b>
KD07CHYR400	Planning Business Start-up			x		4
KD07CHYR401	Networking and Joint Ventures			x		4

KD07CHYR402	Family business and succession				x	2
KD07CHYR403	Business growth and development				x	2
KD07CH03	<b>Electronic business</b>					<b>12</b>
KD07CH03001	Implementation of a Company Website		x			4
KD07CH03002	Use of Databases in Online Services		x			2
KD07DVV013	Graphics of online services			x		3
KD07CH03003	Electronic Business				x	3
KD07CIB01	<b>International business 1 (In English)</b>					<b>15</b>
KD06BNMA630	International business operations (In English)			x		5
KD06BNMA640	Internationalisation of the firm (In English)			x		5
KD06BNMA650	Cross-cultural business (In English)			x		5
KD07CIB02	<b>International business 2 (In English)</b>					<b>9</b>
KE16BUTU123	Logistics (In English)		x			3
KD07DVUL111	Export and import operations (In English)		x			3
KD06BNMA660	International human resources (In English)		x			3
KD07BMMA175	Simulation in strategic marketing management (MARKSTRAT) (In English)		x			3
KD07BMMA176	European marketing surveys (In English)		x			3
KD07CES01	<b>Language, Culture and Business in the Spanish-speaking Countries</b>					<b>12</b>
KD07CES0101	Practical Spanish grammar					3
KD07CES0102	Spanish pronunciation and listening skills					3
KD07CES0103	Culture and business in Spanish-speaking countries					6
KD07CTU	<b>Studies supporting research work</b>					<b>9</b>
KD07APT015	Basics of statistics		x			3
KD07CPTU010	Research work and academic writing			x		2
KD07CPTU020	Thesis seminar				x	2
KD07CPTU002	Quantitative research			x		2
KD07BK TU110	Qualitative research			x		2
KD07BK TU113	How to implement a development project			x		2
KD07BKIELET	<b>Language studies</b>					<b>11</b>
KD07CYRU112	Swedish business communication		x			3
KD07CYEN161	English business communication		x			3
VAIHTKIEL	<b>Alternative language studies</b>					<b>5</b>
DRUOTSI	<b>SWEDISH</b>					
KD07CYRU220	Att tala svenska					2
KD07CYRU140	Swedish-Finnish translation					2
KD07CYRU905	Swedish for accounting					2
KD07CYRU181	Swedish for administration					2
KD07CYRU170	Swedish for marketing					3
KD07CYRU301	Study trip to Sweden					2
KD07CYRU211	Swedish listening, speaking and writing skills					2
KD07DVVK001	The Nordic Countries and the EU					3
KD07DVVK004	Välfärdsstaterna i Norden					3
KD07CRU500	Scandinavian literature, arts and music					3

KD07DWRU050	Swedish, preparatory course					2
DENGLANTI	<b>ENGLISH</b>					
KD07CYEN130	Financial English					2
KD07CYEN140	Business Management English					2
KD07CYEN120	Marketing English					3
KD07CWEN113	Spoken English (In English)					2
KD07CYEN190	Finnish–English business translation					2
KD07CYEN291	North American studies					3
KD07DWEN112	British Studies					3
KD07CYEN330	Writing skills (In English)					2
KD07CYEN031	English for e–commerce (In English)					3
KD07BNA110	Communication on the Web (In English)					2
DSAKSA	<b>GERMAN</b>					
KD07BYSA001	Introduction to business German					3
KD07CHUL509	German for economics					3
KD07CYSA001	German for communication					3
KD07CYSA002	German for communication 2					3
KD07DWSA010	German 1, elementary course					3
KD07DWSA020	German 2, continuation course					3
KD07CYSA801	German 3					3
KD07CYSA802	German 4					3
KD07CYSA123	German, spoken skills					2
KD07DWSA001	Kultur– und Landeskunde Online					3
DESPANJA	<b>SPANISH</b>					
KD07CYES010	Spanish 1					3
KD07CYES111	Spanish 2					3
KD07CYES112	Spanish 3					3
KD07CYES120	Spanish 4					3
KD07CYES121	Spanish 5					3
KD07DVES015	Comprensión lectiva					2
DRANSKA	<b>FRENCH</b>					
KD07DWRA010	Basics in French					3
KD07DWRA020	French 2, continuation course					3
KD07CYRA220	Compréhension de textes – French reading comprehension					2
DVENÄJÄ	<b>RUSSIAN</b>					
KD07CYVE010	Russian 1, elementary course					3
KD07CYVE100	Russian 2, continuation course					3
KD07CYVE111	Russian 3					3
VAPVAL	<b>FREE–CHOICE STUDIES</b>					<b>12</b>
OPINKYPS	<b>THESIS AND MATURITY EXAMINATION</b>					<b>15</b>
KD07FYOT200	Thesis				x	15
KD07FYOT100	Maturity examination				x	
TYÖHARJ	<b>PRACTICAL TRAINING</b>					<b>30</b>

KD07HYTH120	Practical training			x	30
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## Study Descriptions

### Basics of business competence, 45 op KD07ALOP (study entity)

Objectives: Students will be familiar with the establishment and operations of an enterprise. They will understand the process in which the enterprise acquires production factors and combines them in its production process and markets to acquire income. Students will understand the interaction of an enterprise with various interest groups at the regional, national and international levels. Students will perceive the financial process of an enterprise and have knowledge of the basics of accounting. Having completed the module, students will have basic knowledge of business operations, marketing, accounting, business law and economics. The module is integrated into virtual business operations in students' practical training companies.

### Planning a business, 9 op KD07APYR101 (study unit)

#### Lecturers

- Helena Hannu
- Kristiina Mutka–Vierula
- Osmo Mäkinen
- Juhani Palomäki
- Tuulia Potka–Soininen
- Matleena Saarakkala
- Marja Salonen

#### Objectives

Upon completion of the course, students will possess the skills and tools needed to plan business operations. They will be competent in finding information from different databases and know how to operate basic office software. Students will learn to make financing plans and budgets. Students will understand the meaning of the marketing environment and legal aspects associated with business planning. They will also be competent in making a business plan, and they will possess skills in team work.

#### Content

- Entrepreneurship and the fundamentals of business operations
- Regulations and operating principles of an enterprise
- Business plan (vision, strategy, business idea, business process, customers, marketing, competitors, financing plan, profitability and pricing)
- Operational environment of an enterprise
- Information acquisition for business planning
- Basics of office software
- Legal system and basics of law, copyright law, legislation concerning business activity, licenced trades, tradename and company register

#### Literature / Study Material

- Viitala & Jylhä. 2006. Liiketoimintaosaaminen: Menestyvän yritystoiminnan perusta. Edita: Helsinki.
- Hyppönen, Ojala & Joutsen. 2007. Tietokoneen käyttötaito 1 Office 2007– ohjelmille. WS Bookwell: Porvoo.
- Eskola and Mäntysaari. 2007. Talousosaamisen perusteet. WSOY: Helsinki.
- Karttunen, Koivunen, Laasanen, Sippel, Uitto & Valtonen. 2008. Juridiikan perusteet. WSOY: Helsinki.
- Other material as indicated by the lecturer.

#### Learning Methods

- Working in a practice enterprise
- Lectures
- Assignments
- Journal

#### Assessment

- Business plan: 40 %
- Examination and essay: 60 %

*Languages of Instruction*  
Finnish

## **Starting up a business, 9 op KD07APYR102 (study unit)**

### *Lecturers*

- Helena Hannu
- Kristiina Mutka–Vierula
- Juhani Palomäki
- Tuulia Potka–Soininen
- Sirkku Rantalainen
- Marja Salonen

### *Objectives*

Students will become familiar with questions concerning the establishment of a business, and they will be aware of the financial and knowledge resources that it requires. Students will understand the basic principles of business operations and be familiar with the legislation and regulations pertaining to the establishment of a business. They will also be familiar with the different procedures regarding financial management. Students will understand the concepts of marketing and service and know how to initiate appropriate marketing activities. They will also understand the concept of human resource management and be able to plan the business organisation to suit the requirements of the target enterprise. Students will be competent in utilising the various methods of communication in business correspondence.

### *Content*

- Production and production processes
- Forms of marketing
- Fairs and exhibitions as a marketing method
- Introduction to the competitive tools of marketing
- Service-oriented thinking
- Documentation for establishing a company
- Authority in the various parts of a company, administration and legislation concerning the liability of the various parts of a company
- Employment contracts and relevant legislation
- Copyright legislation concerning the creation of a company website
- Word processing and spreadsheet calculation
- Production of brochures and other marketing material
- Basics of bookkeeping
- Basics of value-added taxation, payroll administration and financing
- Practice enterprise fair
- Arranging a cocktail party

The establishment of a business is conducted in accordance with the business plan and by utilising the information obtained from the partner enterprise.

### *Literature / Study Material*

- Bergström S. & Leppänen A.: Yrityksen asiakasmarkkinointi Edita: Helsinki.
- Eskola A. & Mäntysaari A.: Talousosaamisen perusteet, WSOY Oppimateriaalit Oy: Helsinki.

### *Learning Methods*

- Working in a practice enterprise
- Lectures
- Examinations
- Journal

### *Assessment*

- Examinations (marketing, accounting)
- Journal
- Company presentation
- Information acquisition

*Languages of Instruction*  
Finnish

## **Running a business, 9 op KD07APYR103 (study unit)**

### *Lecturers*

- Helena Hannu
- Kristiina Mutka–Vierula
- Osmo Mäkinen
- Juhani Palomäki
- Tuulia Potka–Soininen
- Matleena Saarakkala
- Marja Salonen

### *Objectives*

Students will understand the concepts of financial management, marketing, human resource management and law to be able to run a business. They will also understand the principles of business operations and the connections between different functions. Students will know how to make use of information networks and the Internet.

### *Content*

- Recruitment
- Job satisfaction
- Maintaining customer relations, different types of customers
- Product profitability
- Basics of bookkeeping, e.g. double–entry bookkeeping and closing of the accounts
- Basics of company taxation
- Making a contract
- Judicial issues pertaining to the termination of employment
- Voluntary and judicial collection of a receivable
- Networks and the Internet
- Ergonomics
- Contact with the partner company

### *Literature / Study Material*

- Eskola, A & Mäntysaari A. 2007. Talousosaamisen perusteet. WSOY.
- Other material as indicated by the lecturer.

### *Learning Methods*

- Working in a practice enterprise
- Lectures
- Examinations
- Journal

### *Assessment*

- Exams (accounting)
- Group work
- Journal

### *Languages of Instruction*

Finnish

## **Assessing and developing a business, 9 op KD07APYR104 (study unit)**

### *Lecturers*

- Helena Hannu
- Kristiina Mutka–Vierula
- Osmo Mäkinen
- Juhani Palomäki
- Tuulia Potka–Soininen
- Matleena Saarakkala
- Marja Salonen

*Objectives*

Students will understand how company operations are analysed and developed in the different sectors of business. Students will also understand the need for continuous development and the impacts changes in the operational environment have on business operations. They will be aware of the importance of planning in marketing.

*Content*

- Closing of the accounts
- Analysing results and financial status
- Budgeting
- Life-span of an enterprise
- Personnel strategy
- Annual general meetings
- Development of electronic business
- Development of information technology and data security
- Marketing campaign
- Arranging a PR event
- Company growth and succession
- Final celebration

*Literature / Study Material*

- Eskola, A & Mäntysaari, A. 2007. Talousosaamisen perusteet. WSOY.
- Hyppönen, A., Joutsu, J. & Ojala, A. 2007. Tietokoneen käyttötaito 1. WSOYPro.
- Karttunen, Koivunen, Laasanen, Sippel, Uitto, Valtonen. 2008. Juridiikan perusteet. WSOY.
- Other material provided by the lecturer.

*Learning Methods*

- Working in a practice enterprise
- Lectures
- Exams
- Journal

*Assessment*

- Exams (information technology, accounting)
- Group work (PR event, marketing campaign, financial analysis)
- Journal
- Self-assessment and peer assessment

*Languages of Instruction*

Finnish

## **Introduction to economics, 4 op KD07APKT012 (study unit)**

*Lecturers*

Jorma Imppola

*Objectives*

Students will be familiar with the basic concepts of national economics and economic systems as well as with economic thinking and interdependencies. Upon completion of the course, students will be aware of the central concepts of national economics, know how to use economic statistics, be familiar with different forms of competition, understand economic growth, inflation and monetary policy, and the interdependencies involved in currency rates as regards the long term, and know the causes and effects of economic cycles.

*Content*

- Basics of microeconomics: demand, supply, consumer, enterprise, market, competition
- Concepts connected with national income: formation of national income, consumption, investments, saving, money, banks and financial institutions, economic cycles, economic growth, economic systems

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and exercises (individual online tasks and group assignments for which attendance is compulsory).



*Assessment*

The course grade consists of two parts: examination (70 %) and exercises (30 %). Both parts must be successfully completed to receive a grade for the course.

*Languages of Instruction*

Finnish

## **Basics of business mathematics, 5 op KD07APMT001 (study unit)**

*Objectives*

Upon completion of the course, students will possess the mathematical knowledge they need in commercial and industrial life. They will be competent in calculating percentages, interest, and compound interest.

*Content*

- Calculating percentages: taxation, pricing, indices, inflation, deflation, currencies, devaluation, and revaluation
- Calculating interest and compound interest: calculating short-term and long-term interest, calculations indicating the development of capital, real interest rates, periodic payments, types of financing, real annual interest, investment calculations

*Literature / Study Material*

Saaranen P., Kolttola E. & Pöso, J. (2007). Liike-elämän matematiikkaa.

*Learning Methods*

Lectures, exercises (also on computer) and independent study

*Assessment*

Combined grades of two mid-term exams: if the combined grades are not enough to pass the course, then students must take a re-test for the entire course.

*Languages of Instruction*

Finnish

## **Language studies, 12 op KD07AKIELET (study entity)**

The objective of studies in language and communication is to provide students with functional knowledge of Swedish and of one or more foreign languages required in their profession. Students will be competent in acquiring information in the target languages using various methods, and will be able of communicating in a way that is appropriate for each situation. They will be aware of the influence of cultural differences on communication and will be able to interact with people from different cultures. Students will also be competent in utilising learning strategies that suit their needs, and self-assessment to form a realistic idea of their language skills. In their mother tongue, students will develop their communication skills and acquire an overall picture of the role of communication as a strategic tool. Students also have the opportunity to take languages as optional courses. All students are required to complete at least 6 credits of Swedish in the language programme: Affärssvenska (3 cr) and Affärskommunikation (3 cr) are compulsory for everyone. Likewise, Business English (3 cr) and Business Communication (3 cr) are compulsory for everyone. Students, who have received a certificate in a vocational institution for business or in some other vocational institution and who have not taken the matriculation examination, are required to take preparatory courses in Swedish/English during their Basic Studies in addition to the language programme described above. Students do not receive credit for the preparatory courses; rather they are considered as optional courses. These preparatory courses are also recommended to all of those students who have not taken the matriculation examination in the language in question, whose grade for the examination was A or B, or who have not studied the language in question for a long time. The Business School has a wide range of languages to offer students and there are beginner's courses for several of the languages. To receive full credit for compulsory language studies, students who take a beginner's course must also take the continuation course for the language in question, if one is offered. If a student does not participate in the continuation course, (s)he will receive 1 credit for the beginner's course to include in his/her Language Studies. New students choose the languages they wish to study at the beginning of the fall semester during the days of orientation. Students who already attend the university choose the languages they wish to study in the following year online in the WinhaPro system. Students may check and change their choice(s) of languages when the new semester begins. Students are encouraged to seize the opportunity to study languages as the range of languages on offer is broad. However, students should choose the languages they wish to study with care because the types of groups formed and whether or not teaching is provided depends on what languages students choose. Language Co-ordinator Heli Simon and Principle Lecturer for Languages Päivö Laine will assist students in questions concerning languages to choose, credit for earlier language courses, and changes in the language programme.

## **Business Swedish, 3 op KD07AYRU022 (study unit)**

### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus.Adm.)

### *Objectives*

Students will have competence in using Swedish, both in writing and verbally, in ordinary and field-related situations. They will possess skills and terminology in obtaining and utilising field-related information. They have a positive attitude towards Swedish language learning. Upon completion of the course, students will

- be competent in obtaining field-related information in Swedish,
- be competent in telling about themselves, their education and job experience in Swedish,
- be competent in making telephone calls and writing e-mails in Swedish,
- be competent in telling about their work environment, functioning as a representative of their company and telling about a company's product range,
- know how to communicate in a customer-oriented way in customer-service and consultation situations.

### *Content*

- Telling about oneself and one's education
- Job seeking, interviews, CVs
- Describing one's work environment, conditions and duties
- Describing a company and its operations
- Small talk
- Telephone conversations and electronic communication
- Meetings, giving consultation and opinions and arguing in favour of those opinions
- Verbal customer-service situations
- Presentation of products

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Oral exercises: dialogues, group discussions and presentations
- Written assignments and listening comprehension
- Programme-specific tasks

### *Assessment*

- Active participation in contact teaching
- Active use of oral skills (oral presentations and dialogues)
- Written exercises and assignments
- Exam

All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Command of the basic structures of Swedish

### *Languages of Instruction*

Finnish and Swedish

### *Further Information*

Depending on the degree programme, students may achieve credit for research and development.

## **Business English, 3 op KD07AYEN022 (study unit)**

### *Objectives*

Students will know basic business vocabulary and concepts. They will also be able to communicate about topics related to their education, work and business operations and cope with ordinary, work-related communication situations orally and in writing. Upon completion of the course, students will,

- be competent in telling about themselves, their education and work experience, for example in job interviews,
- be competent in writing a job application and CV,
- be competent in dealing with work-related tasks by telephone and email,

- be competent in telling about the operations of companies in their professional field and their products/services,
- know the basic concepts pertaining to economic life and business operations, and
- acquire and utilise field-related information.

### *Content*

- Telling about oneself and one's educational background and work experience
- Job applications and CVs
- Telephone and email communication, reporting
- Describing the work environment, working conditions and duties, as well as company operations
- Structure of economic life, trade and business
- Information acquisition

### *Literature / Study Material*

Niskanen–Vetter–Urbom: Business Express (WSOY 2008)

### *Learning Methods*

- Oral and written exercises
- Listening comprehension
- Group and pair work
- Lectures
- Programme-related methods

### *Assessment*

- Active participation in contact teaching
- Completion of written and oral assignments and exercises
- Final exam

All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Command of the essential structures of English

### *Languages of Instruction*

Finnish and English

### *Further Information*

Depending on the degree programme, students may achieve credit for research and development.

## **Alternative language studies, 6 op KD07VAKIELI (study unit)**

### *Content*

Students choose foreign languages studies worth 6 credits.

## **PERSONAL DEVELOPMENT AND STUDY PROCESS, 3 op OPISKPROS (study entity)**

Objectives: Students will be familiarised with their learning environment, curriculum and different learning methods. They will create their personal curriculum on the basis of their own objectives. Students will be competent in seeking appropriate information for their needs.

## **Study skills and professional growth, 3 op KD07AOA001 (study unit)**

### *Lecturers*

Ulla Autio, LBA (Econ. & Bus. Adm.), guidance counsellor

### *Objectives*

Students will become familiar with the learning environment and community, degree programmes and learning methods in the Seinäjoki University of Applied Sciences, as well as their learning strategies and how to develop them. They will be aware of their responsibility as learners and later as active and influential members of a work community. Students will enhance their professional orientation and be competent in exhibiting their skills when applying for a job. Students will also be familiar with job seeking and studying offered by the international environment.

## **Study skills and professional growth 1, 1 op KD07AITP001 (study unit component)**

### *Lecturers*

Ulla Autio

### *Objectives*

Student will be familiar with the UAS learning environment and community, degree programmes and learning methods. They will plan their personal curriculum and develop their own learning strategies.

### *Content*

- UAS as a learning environment
- Student support services such as health care, student financial aid, library services, etc.
- Learning strategies and assessment and development of one's own learning
- Structure, aims and content of the degree programme
- Planning one's own personal curriculum (identifying previous knowledge and setting goals)
- International environment and one's studies

### *Literature / Study Material*

Study guides and other material provided by the teacher.

### *Learning Methods*

Online learning, lectures and assignments

### *Assessment*

Pass/fail

## **Study skills and professional growth 2, 1 op KD07AITP002 (study unit component)**

### *Lecturers*

Guidance counsellor and head of degree programme

### *Objectives*

Students will develop their personal curriculum on the basis of their professional orientation. They will be aware of their responsibility as a learner and later as active and influential members of a work community. Students will be competent in acquiring a practical training position relevant to their professional growth. They will also seek a topic for their final thesis while doing their practical training.

### *Content*

- Development of a personal curriculum
- Preparation for practical training
- Preparation for those taking part in an exchange programme
- Familiarisation with field-related duties and the profession in general
- Introduction to research and development

### *Learning Methods*

Active participation in lectures and completed assignments

### *Assessment*

Pass/fail

## **Study skills and professional growth 3, 1 op KD07AITP003 (study unit component)**

### *Lecturers*

Guidance counsellor and head of the programme

### *Objectives*

Students will seek a topic for their final thesis, preferably during their practical training period, which supports their professional development. They will assess the success of their personal curriculum. Students will possess the knowledge and skills needed to apply for various job positions, and they will be competent in presenting their professional skills when seeking a job.

### *Content*

- Assessment of the success of the personal curriculum
- Job application training
- Qualifications and job titles in the field

#### *Literature / Study Material*

Material provided by the teacher

#### *Learning Methods*

Active participation in lectures and other occasions, and completed assignments

#### *Assessment*

Pass/fail

### **Expanding Business Know-How, 37 op KD07BLOL (study entity)**

Extent: 37 credits The aim of the module is to expand and enhance students' expertise in business and the methods supporting that expertise.

### **Company law, 3 op KD07BHHA012 (study unit)**

#### *Lecturers*

Marja Salonen, Master of Laws

#### *Objectives*

Students will know how to act as a contracting party and draw up contracts without interpretational problems. They will be familiar with main features of different company forms, especially concerning liability and representation. They will also be familiar with the legal status of the debtor, creditor and guarantor.

#### *Content*

- Law on legal actions
- Types of companies
- Obligations of debtors to creditors
- Personal security

#### *Literature / Study Material*

- Karttunen–Koivunen–Laasanen–Sippel–Uitto–Valtonen: Juridiikan perusteet 2008
- Information from lectures

#### *Learning Methods*

- Lectures: 36 h
- Compiling documents: 4 h
- Information acquisition tasks: 4 h
- Legal case practice: 4 h
- Reading literature: 10 h
- Examination 23 h

#### *Assessment*

Assessment is based on the written examination and assignments.

#### *Languages of Instruction*

Finnish

### **Introduction to international business, 3 op KD07BIB001 (study unit)**

#### *Lecturers*

Cory Isaacs, MSc (Econ.)

#### *Objectives*

Students will learn the basics of international business and company internationalisation. In international business, the environment of enterprises consists of foreign country market/markets. For this reason, companies must manage their business activities in selected target market/markets. This leads to decisions to standardise or to adapt their business decisions in selected markets. How companies approach this issue depends on their management orientation. Whatever

companies do, they should do it by paying attention to the needs of their customers existing in their target market/markets. These adaptation requirements are primarily due to cultural differences between home and target markets. Target markets vary by e.g. economic systems, climate and the level of development of their economies. There are also many organisations affecting the international marketing environment (e.g. WTO). Trading areas influence the activities of the companies in the markets as well (e.g. NAFTA, EU and ASEAN). When doing business in an international context, cultural borders are crossed. This issue is one of the most important differences between domestic and international business activities. To succeed, you have to understand other cultures to a certain extent. Furthermore, you should be able to analyse and recognise cultural differences and their consequences on everyday business activities with your clients and e.g. in your subsidiary abroad. When an enterprise considers the possibility to go global, the prerequisites of internationalisation need to be thoroughly considered. You must decide which markets to go to, what types of operation modes to use, and what strategies to follow in your internationalisation activities in a long run. All of these issues must be considered with particular attention to international business environmental factors, both in home country and target market e.g. political and legal issues.

### *Content*

- Introduction to international trade
- Global trade environment
- Target market and domestic factors influencing international trade, including e.g. the cultural environment
- Organizations involved in international trade
- Trade areas (EU, NAFTA, ASEAN etc.)
- Means of competition
- Business operations
- Introduction to strategies

### *Literature / Study Material*

- International Business: Global Edition, 6/E Ricky Griffin, Michael Pustay Pearson Higher Education, 2010.
- Powerpoint slides
- Assigned reading: Academic journals

### *Learning Methods*

- Lectures
- Group work
- Case studies
- Discussions

### *Assessment*

- 1 Group Presentation 20 %
- 3 quizzes x 10 points each = 30 % (no retakes or second chances if a quiz is missed)
- Class participation and relevant contributions 10 %
- Exam 40 %

### *Languages of Instruction*

English

## **Customer service as a competitive tool, 2 op KD07BMMA105 (study unit)**

### *Lecturers*

Kristiina Mutka–Vierula, MSc (Econ.)

### *Objectives*

Students will understand the significance of customer service as a competitive tool in the marketing of goods and services. They will be familiar with the distinctive characteristics of marketing and know how to market services by including the customer in the production, consumption and quality process of the service. Students will understand the significance of networks and the company's internal interaction in the development of business.

### *Content*

- Characteristics of services
- Customers as part of the production and consumption process
- Development of the quality of service
- Situations of serving customers and the management of them
- Role of marketing services in maintaining customer relations
- Personal performance in customer service

### *Literature / Study Material*

- Pesonen H–L., Lehtonen J & Toskala A. 2002. Asiakaspalvelu vuorovaikutuksena. Markkinointia, viestintää, psykologiaa.
- Other materials given by the lecturer

### *Learning Methods*

- Lectures
- Group work
- Assignments

### *Assessment*

- Written exam: 50 %
- Group assignments: 50 %

Both parts must be successfully completed to receive a grade. Active participation influences the overall grade.

### *Languages of Instruction* Finnish

## **Competitive tools in marketing, 4 op KD07BMMA130 (study unit)**

### *Lecturers*

Sirkku Rantalainen, MBA (Econ. & Bus. Adm.)

### *Objectives*

Students will have command of the systematic use of competitive tools in creating competitive advantage and know how to apply them to services. Upon completion of the course, students will be competent in planning a company's effective competitive tool combination for each phase in a product's life span.

### *Content*

- Decisions pertaining to products and groups of products
- Product development
- Factors influencing pricing and various approaches to pricing
- Pricing strategies and methods, price elasticity and price maneuvering
- Planning marketing channels and decisions pertaining to management
- External and internal availability
- Lifespan strategies of a product
- Special features of services and their impact on the use on competitive tools

### *Literature / Study Material*

- Kotler P., Armstrong G., Saunders J. & Wong, V. 2005. Principles of Marketing. (chapters 13–14, 16–17 and 20).
- Ylikoski T. 2000. Unohtuiko asiakas? (assigned chapters).
- Other material as indicated during lessons.

### *Learning Methods*

Lecture and group work

### *Assessment*

- Written exam (50 %)
- Group assignments (50 %)

Both parts must be successfully completed to receive a grade for the course. Attendance and active participation affect the overall grade.

### *Languages of Instruction* Finnish

## **Interpretation of financial statements, 2 op KD07BLLA010 (study unit)**

### *Objectives*

Students will learn to analyse the operations of an enterprise on the basis of the information in financial statements. Students will know the elements of financial statements (balance sheet, profit and loss account, funds statement and appendices to the accounts) and their essential contents. Students will learn to assess company profitability and financial status. Students will learn to compare different accounting periods in the same company and in different companies with one another on the basis of profitability and financial status. They will also learn to calculate key ratios and understand the information that these ratios provide. Students will be competent in assessing how the line of business affects the financial statements and how different events inside the company and in its environment affect the financial status and profitability of the company.

### *Content*

- Components of financial statements and the essential contents of the components
- Assessment of profitability and financial status
- Comparisons on the basis of the final accounting information
- Key ratios

### *Literature / Study Material*

- Eskola, Anne and Mäntysaari, Anne: Talousosaamisen perusteet
- Other material distributed by the teacher

### *Learning Methods*

- Lectures
- Independent work
- Discussions
- Group work

### *Assessment*

Group work and a written exam

### *Languages of Instruction*

Finnish

## **Introduction to financial management, 2 op KD07BLLA011 (study unit)**

### *Lecturers*

Juhani Palomäki, MSc (Econ.& Bus. Adm.)

### *Objectives*

Students will be familiar with the basic principles, purposes and areas of utilisation of executive accounting in a company. Students will understand the role of executive/internal accounting as a management tool on the basis of different calculations.

### *Content*

- Profit margin calculation
- Budgeting
- Calculation of product profitability, pricing
- Financial planning and investments
- Economic parameters

### *Literature / Study Material*

- Neilimo & Uusi-Rauva. Johdon laskentatoimi (assigned parts)
- Lecture handout

### *Learning Methods*

Lectures and exercises

### *Assessment*

Written exam



*Prerequisites*

Introduction to Accounting

*Languages of Instruction*

Finnish

**Business taxation, 2 op  
KD07BLLA012 (study unit)**

*Lecturers*

Juhani Palomäki, MSc (Econ.& Bus.Adm.)

*Objectives*

Students will understand the basic concepts and legislation concerning direct and indirect taxation and be able to apply them to business operations. Students will understand the relationship between the profit of the accounting period and direct taxes and recognise factors influencing value added taxation. Students will also know the principles of taxation regarding transfer gains.

*Content*

- Indirect taxation in the various types of companies
- Planning taxation
- Indirect taxation

*Literature / Study Material*

- Niskakangas: Johdatus Suomen verojärjestelmään
- Lecture handout
- Tax legislation as indicated by the lecturer

*Learning Methods*

Lectures and exercises

*Assessment*

Assignment and a written exam

*Prerequisites*

Introduction to Accounting

*Languages of Instruction*

Finnish

**Leadership, 2 op  
KD22CHHA250 (study unit)**

*Objectives*

Students will understand the significance of management work to the success and ability to function of the personnel. They will be familiar with the entire realm of management work and the implementation of business strategies. Students will have a clear picture of the duties and functions of a unit, team and manager.

*Content*

- Managing a business unit
- Motivating the personnel and sensitivity to its well-being
- Beginning and ending an employment relationship
- Self-management

*Literature / Study Material*

- Hyppöne R. 2007. Esimiesosaaminen. Edita.
- Other material distributed by the teacher

*Learning Methods*

Lectures, groupwork, assignment based on an interview with a manager

*Assessment*

Exam graded on a scale of 1–5.

*Prerequisites*  
Entrepreneurship

## **Quality and project management, 2 op KD07CHHA010 (study unit)**

### *Objectives*

Students will understand the basic concepts and meaning of quality and project management in the operation of organisations. Students will be competent in applying essential methods and principles of quality and project management in the management of organisations. They will also be competent in critically assessing issues related to quality and project management.

### *Content*

- Concepts and elements of quality and project management
- Use of quality systems
- Projects as a form of management
- Project ideas
- Organisation and start-up of projects
- Project plan, phases and division
- Project steering
- Risk management in projects

### *Literature / Study Material*

- Lecklin O. 2006. Laatu yrityksen menestystekijänä. Talentum Media Oy.
- Pelin R. 2008. Projektihallinnan käsikirja.

### *Learning Methods*

Lectures, exercises and project plan

### *Assessment*

Depending on the implementation on a scale of 1 to 5.

### *Languages of Instruction*

Finnish

## **Introduction to human resource management, 3 op KD07CHHA212 (study unit)**

### *Objectives*

Students will understand the role of human resource management as an essential part of business operations. They will be familiar with the duties in human resource management and possess the knowledge and skills needed to work as human resource management assistants and members of personnel teams.

### *Content*

- Role of human resource management experts in supporting management and leadership
- Recruitment, orientation and development of human resources
- Human resource plan
- Occupational healthcare and welfare
- Occupational safety
- Internal communication

### *Literature / Study Material*

- Österberg, M. (2007). Henkilöstöasiantuntijan käsikirja. Edita: Helsinki.
- Other material selected by the teacher.

### *Learning Methods*

- Lectures
- Assignments
- Various applications and other exercises
- Written exam

### *Assessment*

Depending on the implementation, on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **Labour law, 3 op KD07BHOI210 (study unit)**

### *Lecturers*

Marja Salonen, Master of Laws

### *Objectives*

Students will be familiar with how to make an employment contract, issues concerning an employee's protection against unlawful dismissal, collective labour agreements, and the regulations pertaining to social security for employees. Upon completion of the course, students will be competent in filling out employment agreements and know their right and responsibilities as an employee. They will understand the collective labour agreement system and be familiar with the unemployment security issues and legislation pertaining to the social security of an employee.

### *Content*

- Making an employment contract
- Rights and responsibilities of employees
- Lay-offs, giving/receiving notice and annulment of an employment relationship
- Collective labour agreements
- Occupational accidents
- Pensions
- Legislation pertaining to unemployment security

### *Literature / Study Material*

Kairinen, Martti: Työoikeus perusteineen (latest edition)

### *Learning Methods*

Lectures and case studies

### *Assessment*

Assessment based on a written exam.

### *Prerequisites*

Introduction to Business Competence

### *Languages of Instruction*

Finnish

## **Payroll administration, 3 op KD07BHHA003 (study unit)**

### *Lecturers*

Juhani Palomäki, MSc (Econ. & Bus. Adm.)

### *Objectives*

Upon completion of the course, students will possess knowledge and understanding of payroll systems, job evaluation as a way to determine how much is paid to an employee, and payroll computation systems. They will also have command of payroll administration in practice.

### *Content*

- Payroll administration as part of personnel administration: work motivation, payroll systems, job evaluation and evaluation systems, organisation of payroll administration
- Payroll computation: payroll computation systems, phases and implementation of payroll calculation, elements of payroll (such as various bonuses, fringe benefits, compensation, the effect of absences, holiday pay), settlements and reports

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, exercises, and computer practice

### *Assessment*

- A written and computer–assisted examination
- Grading based on a scale of 1–5

### *Languages of Instruction*

Finnish

## **Competent book–keeper, 3 op KD07BLLA142 (study unit)**

### *Lecturers*

Tuulia Potka–Soininen, MSc (Econ.)

### *Objectives*

Students will acquire an overview of financial external accounting and its purposes. Students will learn the basic principles of bookkeeping and the closing of the accounts. They will be competent in responding to issues pertaining to accounting, and in finding information from the more significant and relevant sources. They will also be competent in performing bookkeeping for the equity capital in different types of companies. Students will recognise how business transactions and entries affect the result and financial status of a company. Students will be familiar with the various items on income statements and balance sheets and form an understanding of the financial status of a company on the basis of the information in the financial statements. Students will be competent in utilisig a company's financial information in decision–making. Finally, students will understand the connection between accounting and taxation.

### *Content*

- Purposes of financial accounting and financial statements and the use of financial statement information
- Principles of bookkeeping and closing of the accounts
- Specific questions related to bookkeeping
- Entries concerning equity capital
- Financial statements and how to interpret them
- Relation between financial statements and taxation

### *Literature / Study Material*

- Tomperi: Kehittyvä kirjanpitolaitto + exercise book
- Accounting Act and Accounting Ordinance
- General guidelines of the board of accounting
- Limited Liability Companies Act

### *Learning Methods*

Lectures and exercises

### *Assessment*

Exercises and a written examination

### *Prerequisites*

Introduction to Accounting

### *Languages of Instruction*

Finnish

## **Company law, 3 op KD07BLOI111 (study unit)**

### *Lecturers*

Marja Salonen, Master of Laws

### *Objectives*

Students will possess knowledge and understanding of the types of companies in Finland, in particular partnerships and limited companies. They shall also be familiar with legislation pertaining to the Trade Register and commercial names. Upon completion of the course, students will know the requirements of a commercial name as set forth by legislation and the significance of the Trade Register. Students will have command of the processes involved in establishing a partnership or limited company. They will also be aware of the debt liabilities pertaining the various other types of companies and be familiar with the legislation pertaining to company representation.

### *Content*

- Commercial names and the Trade Register
- Legislation pertaining to partnerships

- Limited Liability Companies Act

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and case studies

*Assessment*

Assessment is based on a written examination.

*Prerequisites*

Introduction to Jurisprudence

*Languages of Instruction*

Finnish

## **Spreadsheet calculation for financial management, 3 op KD07CHMA212 (study unit)**

*Lecturers*

Tarja Heikkilä, MA

*Objectives*

Upon completion of the course, students will be competent in planning, implementing and utilising various calculation models and graphically presenting the results. Students will also be able to utilise the various functions and other special features in the Excel programme to solve problems.

*Content*

- Using Excel software for invoicing, payroll, taxation, credits, budgets, investments, etc.
- Excel functions, Pivot charts, databases, etc.

*Literature / Study Material*

- Lammi O. Excel 2007. Laatus taulukoihin. Docendo Finland Oy.
- Material provided by the teacher.

*Learning Methods*

Lectures in the computer room, Excel exercises and independent practice

*Assessment*

Assessment is based on a computer exam and Excel exercises. Both parts must be successfully completed to receive a grade for the course.

*Prerequisites*

- Introduction to Business Mathematics
- Introduction to Information Technology

*Languages of Instruction*

Finnish

*Further Information*

Research & development: 1.5 credits

## **Management of marketing communication, 3 op KD07BMMA002 (study unit)**

*Lecturers*

Sirkku Rantalainen, MBA (Econ. & Bus. Adm.)

*Objectives*

Students will be familiar with the basic theories and purposes of communication and be able to plan and implement advertising campaigns in a target-oriented and integrated way in different organisations. Having completed the course, students will

- know the impact and importance of marketing communication in business image and brand building,

- be able to compare the means and forms of marketing communication and draw up an efficient plan for marketing communication, and
- be able to plan and implement a marketing campaign.

#### *Content*

- Impact of marketing communication and various models
- Role of communication in image and brand building
- Means and planning process of marketing communication
- Planning advertising
- Media planning and integrated communication thinking
- Participation in a marketing communication project (see Alternative Studies in Marketing: Marketing Communication Project) 2 cr

#### *Literature / Study Material*

- Vuokko P. 2003. Markkinointiviestintä merkitys, vaikutus ja keinot
- Material provided by the lecturer

#### *Learning Methods*

Lectures, group assignments and a company project in small groups

#### *Assessment*

- Written exam (50 %)
- Group assignments and company project (50 %)

Active participation influences the overall grade for the course.

#### *Languages of Instruction*

Finnish

#### *Further Information*

Students who have chosen Alternative Professional Studies in Marketing are also required to take the Marketing Projects course (2 cr). Research and development: 1 cr

## **Production of Web Pages, 3 op KD07DWTT040 (study unit)**

#### *Lecturers*

Osmo Mäkinen, MA

#### *Objectives*

Students will gain an overall picture of electronic business and online trade. They will be aware of the significance of functional online services for businesses and other organisations. Students will be competent in planning and implementing a functional online service (website) by means of publishing software. They will understand the principles of mark-up languages and stylesheets and know how to publish a website on the Internet.

#### *Content*

- Concepts and basic issues in e-business and online trade
- Significance of online services for businesses and other organisations
- Implementation of online services
- Tools for designing and implementing online services
- Basics of online services implementation (XHTML, CSS, online publishing software)
- Publication of a website

#### *Literature / Study Material*

Material provided by the teacher.

#### *Learning Methods*

- Lectures
- Guided exercises
- Assignment

#### *Assessment*

- Assignment
- Active participation and coursework
- Assessment on a scale of 1 to 5

#### *Prerequisites*

Basics in Information Technology

#### *Languages of Instruction*

Finnish

### **Statistical processing, 3 op KD07BITI110 (study unit)**

#### *Lecturers*

- Tarja Heikkilä, MA
- Hannu Tuuri, MSc (Soc. Sc.)

#### *Objectives*

Students will know the various phases of quantitative research and know how to process data with the SPSS statistics programme. They will understand the important principles of making statistical conclusions. A small-scale study would be appropriate to carry out while attending this course, for ex. as a project.

#### *Content*

- Quantitative research process
- SPSS for Windows
- Data entry and processing
- Presenting results using descriptive statistics, tables and graphs
- Examples of interdependencies between variables (correlations, cross-tabulation, Chi Square Tests and tests for comparing mean values)
- Analysing results
- Reliability and validity

#### *Literature / Study Material*

- Heikkilä T. 2008. Tilastollinen tutkimus
- Additional material

#### *Learning Methods*

Lectures, computer exercises and assignments

#### *Assessment*

Exercises and an exam

#### *Prerequisites*

Introduction to Statistics

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research and development: 3 cr

### **Payroll administration, 3 op KD07BHHA03 (study unit)**

#### *Lecturers*

Juhani Palomäki, MSc (Econ.)

#### *Objectives*

Upon completion of the course, students will possess knowledge and understanding of payroll systems, job evaluation as a way to determine how much is paid to an employee, and payroll computation systems. They will also have command of payroll administration in practice.

#### *Content*

- Payroll administration as part of personnel administration: work motivation, payroll systems, job evaluation and evaluation systems, organisation of payroll administration
- Payroll computation: payroll computation systems, phases and implementation of payroll calculation, elements of payroll (such as various bonuses, fringe benefits, compensation, the effect of absences, holiday pay), settlements and reports

#### *Literature / Study Material*

To be announced.

#### *Learning Methods*

Lectures, exercises, and computer practice

#### *Assessment*

- A written and computer-based examination
- Grading based on a scale of 1–5

#### *Languages of Instruction*

Finnish

## **Spreadsheet calculation for the purposes of working life, 3 op KD07BLMT122 (study unit)**

#### *Lecturers*

Tarja Heikkilä, MA

#### *Objectives*

Upon completion of the course, students will be competent in planning, implementing and utilising various calculation models and graphically presenting the results. Students will also be able to make summaries of the information in charts, filter information, and utilise the various functions and other special features in the Excel programme to solve problems.

#### *Content*

- Creating and editing spreadsheets with Excel
- Writing formulae and using functions
- Processing/sorting information in a spreadsheet
- Filtering, summarising, linking
- Using Pivot charts
- Creating and editing graphs and charts
- Printing
- Special Excel functions

#### *Literature / Study Material*

- Lammi O. Excel 2007 – Laatus taulukoihin. Docendo Finland Oy
- Material provided by the teacher

#### *Learning Methods*

- Lectures in the computer room
- Excel exercises
- Independent practice

#### *Assessment*

Assessment is based on the computer-aided exercises and exam. Students must complete the required number of exercises and pass the exam to receive a grade for the course.

#### *Prerequisites*

- Introduction to Business Mathematics
- Introduction to Data Processing

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research & development: 1.5 cr



## **Statistical processing, 3 op KD07BIT111 (study unit)**

### *Lecturers*

- Tarja Heikkilä, MA
- Hannu Tuuri, MSc (Soc. Sc.)

### *Objectives*

Students will know the various phases of quantitative research and know how to process data with the SPSS statistics programme. They will understand the important principles of making statistical conclusions. A small-scale study would be appropriate to carry out while attending this course, for ex. as a project.

### *Content*

- Quantitative research process
- SPSS for Windows
- Data entry and processing
- Presenting results using descriptive statistics, tables and graphs
- Examples of interdependencies between variables (correlations, cross-tabulation, Chi Square Tests and tests for comparing mean values)
- Analysing results
- Reliability and validity

### *Literature / Study Material*

- Heikkilä T. 2008. Tilastollinen tutkimus
- Additional material

### *Learning Methods*

Lectures, computer exercises and assignments

### *Assessment*

Exercises and an exam

### *Prerequisites*

Introduction to Statistics

### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 3 cr

## **Labour law, 3 op KD07BHOI21 (study unit)**

### *Lecturers*

Marja Salonen, Master of Laws

### *Objectives*

Students will be familiar with how to make an employment contract, issues concerning an employee's protection against unlawful dismissal, collective labour agreements, and the regulations pertaining to social security for employees. Upon completion of the course, students will be competent in filling out employment agreements and know their rights and responsibilities as an employee. They will understand the collective labour agreement system and be familiar with the unemployment security issues and legislation pertaining to the social security of an employee.

### *Content*

- Making an employment contract
- Rights and responsibilities of employees
- Lay-offs, giving/receiving notice and annulment of an employment relationship
- Collective labour agreements
- Occupational accidents
- Pensions
- Legislation pertaining to unemployment security

*Literature / Study Material*

Kairinen, Martti: Työoikeus perusteineen (latest edition)

*Learning Methods*

Lectures, case studies

*Assessment*

Assessment based on a written exam.

*Prerequisites*

Introduction to Jurisprudence

*Languages of Instruction*

Finnish

## **Production of Web Pages, 3 op KD07DWTT40 (study unit)**

*Lecturers*

Osmo Mäkinen, MA

*Objectives*

Students will gain an overall picture of electronic business and online trade. They will be aware of the significance of functional online services for businesses and other organisations. Students will be competent in planning and implementing a functional online service (website) by means of publishing software. They will understand the principles of mark-up languages and stylesheets and know how to publish a website on the Internet.

*Content*

- Concepts and basic issues in e-business and online trade
- Significance of online services for businesses and other organisations
- Implementation of online services
- Tools for designing and implementing online services
- Basics of online services implementation (XHTML, CSS, online publishing software)
- Publication of a website

*Literature / Study Material*

Material provided by the teacher

*Learning Methods*

- Lectures
- Guided exercises
- Assignment

*Assessment*

- Assignment
- Active participation and coursework
- Assessment on a scale of 1 to 5

*Prerequisites*

Basics in Information Technology

*Languages of Instruction*

Finnish

## **Financial accounting, 12 op KD07CL01 (study entity)**

Objectives: Students will become familiar with specific questions concerning accounting, such as the valuation of inventories, income recognition, planned depreciation and financial entries. Students will have command of entrepreneurial taxation pertaining to the various types of companies and their owners. There is also discussion of the determination of an enterprise's taxable income. With regard to result planning, the factors influencing the profit target and the methods the company has at its disposal are examined. Other topics include the auditing process, auditing legislation and practices.

## **Business taxation, 3 op KD07BLLA170 (study unit)**

### *Lecturers*

Erkki Kytönen, DSc (Econ.& Bus. Adm.)

### *Objectives*

Students will understand the foundations and practical implementation of company taxation.

### *Content*

The course deals with legislation pertaining to the direct taxation in the various types of companies. Students will learn about the foundations and structure of business legislation.

### *Literature / Study Material*

- Tomperi: Yritysverotus ja tilinpäätössuunnittelu
- Online material published by the tax administration at [www.vero.fi](http://www.vero.fi)
- Kytönen: Lecture handout 2009

### *Learning Methods*

Lectures and exercises, assignment.

### *Assessment*

Assessment is based on a written examination and assignment.

### *Languages of Instruction*

Finnish

## **Personal taxation, 2 op KD07CLLA100 (study unit)**

### *Lecturers*

Marja Salonen, Master of Law

### *Objectives*

Students will be familiar with the essential features of the taxation of private persons. Upon completion of the course, students will understand the organisation of taxation, the regulations set forth in the act on income taxes, and know how to make an appeal to the tax office.

### *Content*

- Regulations in the act on income taxes
- Capital transfer tax
- Inheritance tax
- Other relevant taxes in brief

### *Learning Methods*

Lectures and exercises

### *Assessment*

Assessment is based on a written examination.

### *Prerequisites*

Introduction to Law

### *Languages of Instruction*

Finnish

## **Preparing financial statements, 4 op KD07CLE1002 (study unit)**

### *Lecturers*

Tuulia Potka-Soininen, MSc (Econ.& Bus. Adm.)

### *Objectives*

Students will be familiar with the problems concerning financial statements and the underlying issues associated with the planning of financial statements. They will recognise the differences between the book result, the result used as a basis for taxation and the operational result of a company. The course involves theoretical studies, which will be linked to

various exercises.

### *Content*

The more important criteria involved in the planning of financial statements in different types of corporations.

### *Literature / Study Material*

- Tomperi: Kehittyvä kirjanpito
- Accounting Act
- Accounting Ordinance

### *Learning Methods*

Lectures

### *Assessment*

Exercises in class and a written examination

### *Prerequisites*

Introduction to Accounting

### *Languages of Instruction*

Finnish

## **Auditing of the accounts, 3 op KD07BLLA240 (study unit)**

### *Lecturers*

Tuulia Potka–Soininen, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will understand the auditing process and the standards defined in the Auditing Act. They will be competent in forming a true and fair view of a company's financial situation.

### *Content*

- Auditing in general
- Auditing administration
- Accounting records and financial statements
- Auditor's reports and legislation regulating auditing

### *Literature / Study Material*

- Kokkonen: Tilintarkastuksen perusteet ja käytäntö
- Finnish Institute of Authorised Public Accountants: Tilintarkastuskertomukset ja tilintarkastajan lausunnot

### *Learning Methods*

Lectures and exercises in class

### *Assessment*

Written examination

### *Languages of Instruction*

Finnish

### *Further Information*

Tuulia Potka–Soininen

## **Management accounting, 12 op KD07CL02 (study entity)**

Objectives: Students will understand the utilisation of executive accounting in decision-making. The module focuses on the methods of executive accounting that can be used for business planning and the evaluation of results. The techniques of cost accounting, such as incremental accounting and activity-based accounting, will be examined. Other topics include accounting techniques for planning and evaluation, such as budgeting and score cards. In addition, the module deals with business management systems that can be used as management tools.

## **Cost management and result measurement, 4 op KD07CLLA310 (study unit)**

### *Lecturers*

Aapo Lämsiluoto, DSc (Econ. & Bus. Adm.)

### *Objectives*

Upon completion of the course, students will understand the ways of using information produced through management accounting for operative and strategic decision-making in business management.

### *Content*

The course focuses on the executive accounting techniques: activity-based cost accounting and Balanced Scorecard.

### *Literature / Study Material*

- Järvenpää M., Partanen V. & Tuomela T. S. Moderni taloushallinto. Edita. (appl. parts)
- Neilimo K. & Uusi-Rauva E. Johdon laskentatoimi. Edita: Helsinki. (appl. parts)
- Lumijärvi O. P. Toimintolaskenta käytännössä. OR
- Horngren C., Foster G & Datar S. Cost Accounting. A Managerial Emphasis, Englewood Cliffs, Prentice Hall. (appl. parts)
- Lämsiluoto. Kustannusjohtaminen & suoritemitlaus
- Additional material provided by the lecturer

### *Learning Methods*

- Lectures
- Exercises
- Case studies

### *Assessment*

The criteria are agreed upon at the beginning of the course.

### *Prerequisites*

Introduction to Executive Accounting

### *Languages of Instruction*

Finnish

## **Budgeting as a management tool, 3 op KD07CLLA190 (study unit)**

### *Lecturers*

Aapo Lämsiluoto, DSc (Econ. and Bus. Adm.)

### *Objectives*

Upon completion of the course, students will understand the significance of financial planning and monitoring in business management. Students will also see connections between phenomena in economic life, such as the impacts of changes in demand and costs on the economic success of a company.

### *Content*

- Budget planning
- Monitoring and internal reporting
- Financial management in an enterprise and profit centre organisation
- Preparing a budget: result, balance and funding budgets

### *Literature / Study Material*

- Neilimo K. & Uusi-Rauva E. Johdon laskentatoimi. Edita: Helsinki. Assigned section. Chapters 11–13 of the 2005 edition
- Järvenpää M., Partanen V. & Tuomela T.S. Moderni taloushallinto. Edita: Helsinki. Assigned sections. Chapters 8–10 of the 2001 edition.
- Lämsiluoto A. Lecture handout.
- Additional material as indicated by the lecturer.

### *Learning Methods*

Lectures, exercises ( on computer also) and independent practice

### *Assessment*

To be agreed upon during the course.

### *Prerequisites*

Introduction to Financial Management

### *Languages of Instruction*

Finnish

## **Price setting and profitability, 2 op KD07CHTA213 (study unit)**

### *Lecturers*

Aapo Länsiluoto, PhD

### *Objectives*

Having completed the course, students will understand the effect of pricing on profitability. Students will learn different pricing alternatives and factors that influence pricing.

### *Content*

- Customer–profitability analysis
- Pricing methods
- Effect of the competitive situation on pricing
- Pricing of products and services

### *Literature / Study Material*

- Laitinen E. K. 2007. Kilpailukykyä hinnoittelulla. Economica series. Talentum: Helsinki.
- Neilimo K. & Uusi–Rauva E. Johdon laskentatoimi. Edita: Helsinki. Sections selected by the teacher. Chapter 9 in the 2005 edition.
- Länsiluoto A. Lecture handout.
- Additional material as indicated during the course

### *Learning Methods*

Lectures and exercises

### *Assessment*

To be agreed upon at the beginning of the course.

### *Prerequisites*

Introduction to Financial Management

### *Languages of Instruction*

Finnish

## **Business management solutions, 3 op KD07BLLA132 (study unit)**

### *Lecturers*

Juhani Palomäki, MSc (Econ. & Bus. Adm.)

### *Objectives*

Upon completion of the course, students will have an overall picture of a company's business management system.

### *Content*

The course focuses on the use of an integrated system and on the management of the order–delivery chain. The following system modules are covered: customer/supplier management, tender calculation, sales orders, invoicing/accounts receivable, purchase orders, accounts payable, and stock control.

### *Literature / Study Material*

- Berglund, Järvenpää, Lehtinen and Ylinen. 2002. Toiminnan ohjausjärjestelmien hyväksikäytön nykytila Keski–Pohjanmaan, Seinäjoen ja Vaasan ammattikorkeakoulujen toimialueella
- Other material provided by the lecturer

### *Learning Methods*

Lectures and case studies

### *Assessment*

Assessment is based on an examination and the case studies.

### *Prerequisites*

- Introduction to Internal Accounting
- Computer-aided Accounting
- Value-added Taxation

### *Languages of Instruction*

Finnish

## **Financial statements and financial analysis, 12 op KD07CL03 (study entity)**

Objectives: Students will deepen their knowledge and improve their skills in using accounting information and methods to plan, implement and analyze financing. Students will understand and examine the monetary processes of an enterprise in a modern business environment. They will be competent in handling demanding tasks in financial planning, implementation and monitoring, as well as in working in the financial market. The focus of the module is on the analysis of financial statements, short- and long-term financial planning, how financial markets function, sources of funding and international financing.

## **Financial Statement Analysis, 4 op KD07CLLA270 (study unit)**

### *Lecturers*

Erkki Kytönen, DSc (Econ.& Bus.Adm.)

### *Objectives*

Upon completion of the course, students will be competent in carrying out a financial analysis of an enterprise's operational preconditions and utilise the information obtained in the analysis.

### *Content*

The course focuses on the purpose and principles involved in analysing financial statements, editing basic data, traditional ratio analysis, cash-flow calculations and market-based ratios using case studies.

### *Literature / Study Material*

- Kallunki-Kytönen. 2007. – Uusi tilinpäätösanalyysi
- Bergevin: Financial Statement Analysis: An Integrated Approach
- Yritystutkimusneuvottelukunta: Yritystutkimuksen tilinpäätösanalyysi
- Kytönen: Lecture hand-out

### *Learning Methods*

Lectures and exercises

### *Assessment*

Assessment is based on an examination and an assignment.

### *Languages of Instruction*

Finnish

## **Investment and financial planning, 3 op KD07CLLA290 (study unit)**

### *Lecturers*

Erkki Kytönen, DSc (Econ.& Bus. Adm.)

### *Objectives*

Students will have command of investment and financial planning, as well as management in an enterprise.

### *Content*

- Investment planning
- Investment process
- Strategic evaluation of investments
- Capital structure and costs
- Factors contributing to uncertainty in investment planning

- Company valuation

#### *Literature / Study Material*

- Niskanen & Niskanen: Yritysrahoitus
- Brealey, Myers & Marcus: Fundamentals of Corporate Finance: international edition (assigned sections)
- Other material provided by the lecturer

#### *Learning Methods*

- Lectures
- Case studies
- Calculations

#### *Assessment*

Examination

#### *Languages of Instruction*

Finnish

### **Liquidity management, 3 op KD07CLLA300 (study unit)**

#### *Lecturers*

Erkki Kytönen, DSc (Econ. & Bus. Adm.)

#### *Objectives*

Students will be familiar with the practical problems in decision-making associated with liquidity management in a company.

#### *Content*

Liquidity management involves the management of a company's short-term assets and debts, as well as risk management of the central elements. Topics include financial management, credit management and short-term debt management.

#### *Literature / Study Material*

- Maness-Zietlow: Short-term Financial Management (2004)
- Kytönen: Lecture hand-out

#### *Learning Methods*

Lectures and exercises during lectures and an assignment

#### *Assessment*

A written examination and assignment

#### *Languages of Instruction*

Finnish

### **Financial law, 2 op KD07BLOI242 (study unit)**

#### *Lecturers*

Marja Salonen, DSc (Pol. Sc.)

#### *Objectives*

Students will understand the legal issues associated with financing. They will be familiar with the various tools used in financing, as well as property and life insurance. Students will also obtain an overall picture of the legal issues involved in stocks.

#### *Content*

- Tools for financing
- Property and life insurance and debt
- Legislation pertaining to credit information
- Legal issues involved in stocks

#### *Literature / Study Material*

Material distributed by the teacher



*Learning Methods*  
Lectures and case studies

*Assessment*  
Written exam

*Prerequisites*  
Introduction to Law

## **Utilisation of market information, 12 op KD07CM05 (study entity)**

Objectives: Upon completion of the module, students will be competent in planning and implementing marketing research. Additionally, students will understand the needs of various consumers as well as their purchasing and consumption behaviour. They will also be competent in managing customer relationships in various various of the lifespan. Students will be capable of utilising customer and consumer information the decision-making pertaining to marketing.

## **Marketing research, 6 op KD07BMMA135 (study unit)**

*Lecturers*

- Sirkku Rantalainen, MBA (Econ. & Bus Adm.)
- Tarja Heikkilä, MA

*Objectives*  
Students will be capable of planning and carrying out market analyses and effectively using them in a company's marketing decision-making.

*Content*

- Decision-making perspective on marketing research
- Ethical issues
- Marketing research planning process: research purpose and objective, research approach, research tactics, data collection, analysis, and reporting
- Implementation of small-scale marketing research for a company

*Literature / Study Material*

- Aaker D., Kumar V. & Day G. 2006. Marketing Research (assigned parts)
- Mäntyneva M., Heinonen J., & Wrange K. 2008. Markkinointitutkimus
- Other material distributed by the teacher

*Learning Methods*

- Lectures
- Work in small groups
- Small-scale research project

*Assessment*

- Written exam (50 %)
- Work in small groups (50 %)

All parts must be successfully completed to receive a grade. Active participation affects the grade for the course.

*Prerequisites*  
In addition to this course, students must complete Processing Statistical Data (3 cr).

*Languages of Instruction*  
Finnish

*Further Information*  
Research and development: 6 cr

## **Consumer behaviour, 3 op KD07BMMA170 (study unit)**

### *Lecturers*

Terhi Kortesmäki LSc (Econ. & Bus. Adm.)

### *Objectives*

Students will understand the significance of consumption in today's society. They will be aware of the visible and non-visible factors influencing consumer behaviour. Students will also understand the needs of various consumers, as well as their purchasing and consumption behaviour. They will be competent in applying this knowledge in marketing decision-making.

### *Content*

- Finnish consumption society
- Consumer behaviour as an individual and as a member of a group
- Gathering consumer information: needs, motives, values, attitudes and involvement
- Purchasing and decision-making process of consumers
- Various types of consumers, cultures, subcultures, and lifestyles

### *Literature / Study Material*

- Solomon M., Bamessy G. & Askegaard S. Consumer Behaviour –European Perspective.
- Articles selected by the lecturer

### *Learning Methods*

Lectures and assignments independently and in groups

### *Assessment*

- Written exam (50 %)
- Work in small groups (50 %)

Students must pass both parts to receive a grade for the course. Active participation affects the overall grade for the course.

### *Languages of Instruction*

Finnish

## **Customer relationship management, 3 op KD07BMMA111 (study unit)**

### *Lecturers*

Kristiina Mutka–Vierula, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will be aware of the special features of relations marketing especially in the context of marketing goods. They will understand the role of relations marketing in the various phases of a product's/service's lifespan and in the maintenance and development of customer relations. Students will be competent in managing customer relations in the various phases of the lifespan.

### *Content*

- Relations marketing
- Marketing of services/goods in the various phases of their lifespan
- Customer management in the lifespan of the customer relationship

### *Literature / Study Material*

- Gummesson E. 2004. Suhdemarkkinointi 4 P:stä 30 R:ään
- Mäntyneva M. 2001. Asiakkuudenhallinta
- Other material provided by the lecturer

### *Learning Methods*

Lectures and group work

### *Assessment*

Assessment is based on an examination (40 %) and group work (60 %). Students must pass both parts to receive a grade

for the course.

*Languages of Instruction*  
Finnish

## **Marketing planning and management, 12 op KD07CM02 (study entity)**

**Objectives:** Upon completion of the module, students will be competent in systematically performing in competitive situations in the market. They will be capable of creating solutions on the strategic and operational levels in the mentioned competitive situations. They will know how to create a marketing plan for a company and utilising it to develop the company's marketing operations. Students will be competent in analysing, planning, creating, developing and maintaining brands and work innovatively in situations that build and develop brands. In addition, students will be capable of utilising economic information and abiding by legal norms when making decisions about marketing.

## **Marketing plan as a management tool, 3 op KD07CMMA002 (study unit)**

*Lecturers*  
Terhi Kortesmäki, LSc (Econ. & Bus. Adm.)

*Objectives*  
Students will be competent in analysing companies and their operational environments. They will understand the impact of marketing procedures on competition and be capable of creating a marketing plan and utilising it to develop a company's marketing operations.

*Content*

- Analyses
- Determining competitive advantage and competitive position
- Marketing strategies
- Marketing plans

*Literature / Study Material*

- Lahtinen J. & Isoviita A. 1998. Markkinoinnin suunnittelu.
- Hooley G., Piercy N., Nicoulaud B. 2007. Marketing Strategy and Competitive Positioning.
- Kotler P. & Keller K. 2006. Marketing Management
- Trout J. & Hafren G. 2003. Erilaistu tai kuole. Selviytyminen tappavan kilpailun aikakautena.

*Learning Methods*  
Lectures, group work (project)

*Assessment*  
Assessment is based on a written report about the project and the oral presentation of it. Participation in the presentations of other groups influences the overall grade for the course.

*Prerequisites*  
Introduction to Marketing

*Languages of Instruction*  
Finnish

*Further Information*  
Research and development: 3 cr

## **Brand management, 3 op KD07BMMA161 (study unit)**

*Lecturers*  
Terhi Kortesmäki LSc (Econ. & Bus. Adm.)

*Objectives*  
Students will understand the meaning of brand management when determining and attaining a market position. They will be competent in analysing, planning, creating, and maintaining brands. They will also be competent in using methods for constructing and developing brands, and they will do so innovatively and creatively.

*Content*

- Defining a brand
- Personality of brands
- Core promise and values
- Meaning of brands to consumers and companies
- Constructing a brand and the obstacles associated with them
- Managing the lifespan of a brand
- Measuring the performance of a brand

#### *Literature / Study Material*

- Aaker D. 2002. Building Strong Brands
- Laakso H. 2003. Brandit kilpailuetuna. Miten rakennan ja kehitän tuotemerkkiä
- Malmelin M. & Hakala J. 2007. Radikaali brändi
- Other material announced by the lecturer

#### *Learning Methods*

Lectures, journal and small-group work

#### *Assessment*

Journal (50 %), small-group work (50 %). Students must pass both parts to receive a grade for the course. Active participation affects the overall grade for the course.

#### *Prerequisites*

Introduction to Marketing

#### *Languages of Instruction*

Finnish

## **Marketing in an international environment, 2 op KD07BMMA112 (study unit)**

#### *Lecturers*

Kristiina Mutka–Vierula, MSc (Econ. & Bus. Adm.)

#### *Objectives*

Students will be competent in analysing the special features of markets and cultures. They will understand the special requirements of marketing when making decisions in an international environment.

#### *Content*

- Cultural environment of international business
- Marketing management in an international environment (competitive tools)
- Marketing strategies and business operations in an international business environment

#### *Literature / Study Material*

- Cateora P. R. & Graham J. L. International Marketing (assigned parts)
- Other material announced by the lecturer

#### *Learning Methods*

Lectures, group work and assignments

#### *Assessment*

- Exam (60 %)
- Assignments (40 %)

All parts must be completed to receive a grade for the course. Active participation affects the overall grade for the course.

#### *Languages of Instruction*

Finnish

## **Financial management of marketing, 2 op KD07BMMA300 (study unit)**

#### *Lecturers*

Aapo Lämsiluoto, DSc (Econ.& Bus. Adm.)

### *Objectives*

Students will be competent in applying financial information when making marketing decisions concerning products and prices.

### *Content*

- Profit margin analysis
- Product-based cost accounting
- Pricing

### *Literature / Study Material*

- Neilimo K. & Uusi-Rauva E. 2005. Johdon laskentatoimi
- Material provided by the lecturer

### *Learning Methods*

Lectures and exercises

### *Assessment*

To be discussed at the beginning of the course.

## **Marketing law, 2 op KD07DVOI43 (study unit)**

### *Lecturers*

Marja Salonen, DSc (Pol. Sc.)

### *Objectives*

Students will be familiar with central legislation concerning rights of sale and the significance of copyrights on the Internet in particular. Upon completion of the course, students will

- have command of the legislation associated with competition,
- be familiar with the laws pertaining to the security of products,
- be aware of issues of privacy in marketing,
- be familiar with the copyright law particularly in connection with the online environment, and
- understand the laws pertaining to what a brand should be like.

### *Content*

- Legislation associated with restrictive trade practices
- Consumer protection
- Legislation pertaining to the safety of products
- Legislation pertaining to inappropriate procedure in business
- Copyrights on the Internet

### *Literature / Study Material*

As indicated by the lecturer.

### *Learning Methods*

Lectures and case studies

### *Assessment*

Assessment is based on a written examination.

### *Languages of Instruction*

Finnish

## **Retail business and logistics, 5 op KD07BMMA222 (study unit)**

### *Objectives*

Students will understand the central requirements, business models and processes for the management of a commercial enterprise. They will also be aware of the value of customer-oriented production in a global business environment. Students will be competent in managing and developing a commercial enterprise.

### *Content*

- Business chain models

- Franchising
- Online business
- Selling specialty goods
- Central features of managing a commercial enterprise (strategic and operative management, customer value, development of business concepts)

#### *Literature / Study Material*

- Hukka M. 2005. Ketjuuntumisesta kilpailuetu. Ketjuuntuminen suomalaisessa erikoiskaupassa
- Kautto M & Lindblom A. 2005. Ketju. Kaupan liiketoiminta
- Other material distributed by the teacher

#### *Learning Methods*

- Lectures
- Journal
- Work in small groups

#### *Assessment*

The final grade for the course comprises two parts: journal (60 %) and groupwork (40 %). Both parts must be successfully completed to receive a grade for the course. Active participation affects the overall grade for the course.

#### *Prerequisites*

- Introduction to Marketing
- Competitive Tools in Marketing
- Customer Service as a Competitive Tool
- Comprehensive Marketing Communication

### **Competitive methods in retail trade, 5 op KD07BMMA223 (study unit)**

#### *Objectives*

Students will understand the significance of comprehensive marketing communication in the maintenance and development of the competitive edge of a retail company. Upon completion of the course, students will possess the readiness needed in duties pertaining to planning and implementation in a retail company. They will be competent in planning marketing strategies and in choosing appropriate operative competitive tools. Students will also be competent in managing and developing a commercial enterprise.

#### *Content*

- Retail shop as a business environment
- Managing the product range
- Pricing
- Data-processing systems
- Long-standing customers
- Marketing communication
- Visual marketing
- Shop environment
- Customer service
- Strategies pertaining to location
- Logistics
- Purchasing

#### *Literature / Study Material*

- McGoldrick P. Retail Marketing.
- Markkanen S. 2008. Myymäläympäristö elämysten tuottajana
- Other material distributed by the teacher

#### *Learning Methods*

- Lectures
- Journal
- Work in small groups (groups have different topics)

#### *Assessment*

The final grade for the courses comprises two parts: journal (50 %) and groupwork (50 %). Both parts must be

successfully completed to receive a grade for the course. Active participation affects the overall grade for the course.

#### *Prerequisites*

- Introduction to Marketing
- Competitive Tools in Marketing
- Customer Service as a Competitive Tool
- Comprehensive Marketing Communication

### **Personal sales, 2 op KD07CMMA220 (study unit)**

#### *Objectives*

Students will understand the role of personal selling as a means of marketing communication. They will be familiar with the central concepts and demands associated with sales. Students will also understand issues concerning development in sales management. Upon completion of the course, students will be competent in planning and implementing a productive sales event and possess readiness to work in jobs requiring selling.

#### *Content*

- Planning and implementing a sales event
- Management of the selling process
- Selling techniques
- Personal selling as a means of marketing communication
- Characteristics of a good salesperson
- Management of sales

#### *Literature / Study Material*

- Rubanovitsch M & Aalto E. 2007. Haasteena myynnin johtaminen
- Laine P. 2008. Myynnin anatomia. Anna asiakkaan ostaa
- Pekkarinen U., Pekkarinen E. & Vornanen J. 2006. Menestyvän myyjän käsikirja

#### *Learning Methods*

Lectures, practical exercises and written exercises

#### *Assessment*

The grade consists of two parts: practical exercises 50 % and written assignments 50 %. Both parts must be successfully completed to receive a final grade. Active participation and attendance contribute to the final grade.

#### *Prerequisites*

- Introduction to Marketing
- Competitive Tools of Marketing
- Customer Service as a Competitive Tool
- Comprehensive Marketing Communication

#### *Further Information*

The course can be replaced by the course Master Seller (2 cr).

### **Personnel management, 12 op KD07CHR001 (study entity)**

Objectives: Students will be familiar with the area of personnel management and understand the significance of the management and development of personnel resources and of identifying personnel expertise to develop the business in a company. They will possess the knowledge and skills needed in duties requiring expertise in personnel management. Students will understand processes of change and the management of them in the development of business.

### **Development of work community, 3 op KD07CHHA210 (study unit)**

#### *Objectives*

Students will understand the importance of the development the work community in the operation of an organisation. They will understand the challenges of the change and development processes from the viewpoint of the individual, team and organisation. Students will be competent in working in duties involving development.

#### *Content*

- Self-knowledge and self-development
- Development of team activities
- Change management and communication

*Literature / Study Material*

A collection of articles

*Learning Methods*

Lectures and an assignment

*Assessment*

Depending on the implementation, on a scale of 1 to 5.

*Prerequisites*

2-year courses related to human resource management

*Languages of Instruction*

Finnish

## **Knowledge Management, 4 op KD07CHHA251 (study unit)**

*Objectives*

Students will understand the significance of identifying, managing and developing expertise to the development of business in a company. They will be familiar with various ways to evaluate, identify and develop expertise in an organisation.

*Content*

Students will understand the significance of identifying, managing and developing expertise to the development of business in a company. They will be familiar with various ways to evaluate, identify and develop expertise in an organisation.

*Literature / Study Material*

Otala L. 2008. Osaamispääoman johtaminen. WSOY.

*Learning Methods*

Lectures, guest lecturers, and group work

*Assessment*

The grade for the course comprises two parts: an exam (50 %) and group work (50 %). Both parts must be completed successfully to receive a grade for the course.

*Prerequisites*

Studies in Human Resources Management

*Languages of Instruction*

Finnish

## **Special themes of human resource management, 3 op KD07CHHA211 (study unit)**

*Objectives*

Students will understand special issues associated with human resource management, such as international human resource management, termination of employment and managing different groups of people. Students have the knowledge and skills to work in exceptional situations.

*Content*

- International human resource management
- Co-operation procedure
- Lay-offs and dismissal
- Age management
- Mentoring
- Securing equality
- Coping with exceptional situations

*Literature / Study Material*

To be announced.



*Learning Methods*  
Lectures and applications

*Assessment*  
Depending on the implementation, on the scale of 1 to 5.

*Prerequisites*  
Courses related to human resource management

*Languages of Instruction*  
Finnish

## **Strategic management, 2 op KD07DCCH212 (study unit)**

*Objectives*  
Students will understand the importance of strategic thinking in a changing operational environment. Students will acquire an overview of the different stages of the strategy process. They will have knowledge and skills in duties where strategies are used.

### *Content*

- Basics of strategic management
- Analysis of the operational environment and organisation
- Strategic choices
- Business strategies
- Implementation of strategy
- Development and assessment of strategy

*Literature / Study Material*  
To be announced.

*Learning Methods*  
Lectures and an assignment

*Assessment*  
Depending on the implementation, on a scale of 1 to 5.

*Prerequisites*  
Studies in Human Resources Management

*Languages of Instruction*  
Finnish

## **Entrepreneurship and working as an entrepreneur, 12 op KH07CH003 (study entity)**

*Objectives:* Students will become familiar with the process of creating a new business, developing an existing business and with the challenges and practical measures for continuing a business. Students will acquire the readiness they need to develop strategic company-level plans (business plans, plans for succession, and plans for growth). They will understand the significance of innovative business ideas, networks, and continuous development for successful entrepreneurship in times of change.

## **Planning Business Start-up, 4 op KD07CHYR400 (study unit)**

*Lecturers*  
Kirsti Sorama, DSc (Econ. & Bus. Adm.)

*Objectives*  
Students will be familiar with the central issues involved in establishing a business, e.g. evaluating a new business idea and creating a business plan. Upon completion of the course, students will know why and when a business plan is planned, have command of the area of business planning, its elements and how they fit together. Students will be familiar with the difficult albeit necessary process involved in business planning that entrepreneurs encounter when establishing a new enterprise.

*Content*  
The course offers students the opportunity to apply their business training and experience to an extremely practical

project. Working in small groups, students will prepare a comprehensive strategy for establishing a new business. They will identify the target markets for a new product/service, plan the marketing, sales, development and business processes, as well as do the necessary financial calculations.

#### *Literature / Study Material*

- McKinsey et al. 2001. Ideasta kasvuyritykseksi. ISBN 951-0-25225-5
- Lawrence & Moyes. 2001. Writing a Successful Business Plan (hand-out)
- Sahlman W. A. 1997. How to Write a Great Business Plan. Harvard Business Review. July–August. \*Examples of business plans
- Other material distributed during lectures

#### *Learning Methods*

Learning is based on the principles of explorative learning: contact lessons (group presentations, discussions, and lectures), independent group work.

#### *Assessment*

The grade for the course is based on mid-term assignments, a completed business plan and the presentation of it, and peer evaluation.

#### *Prerequisites*

Introduction to Business

#### *Languages of Instruction*

Finnish

## **Networking and Joint Ventures, 4 op KD07CHYR401 (study unit)**

#### *Lecturers*

Elina Varamäki, DSc (Eco. & Bus. Adm.)

#### *Objectives*

Students will become familiar with various models for networking and understand the significance of networking in the establishment and development of a business.

#### *Content*

- Concepts associated with networking
- Core expertise and networking
- Bilateral and multilateral models of networking
- Added value of networking in the phases of a company's life-cycle
- Initiating and developing co-operation
- Prerequisites for success, as well as problems
- Network management

#### *Literature / Study Material*

- Material distributed by the lecturer.
- Vesalainen. 2002. Yhteistyön malleja. Käsikirja yhteistyön edistäjille ([www.yrittajakoulu.com/yrittajyyden\\_oppia](http://www.yrittajakoulu.com/yrittajyyden_oppia))
- Varamäki 2002. Pk-yritysten monenkeskeinen yhteistyö. Akateeminen yrittäjäkoulu ([www.yrittajakoulu.com/yrittajyyden\\_oppia](http://www.yrittajakoulu.com/yrittajyyden_oppia))
- Niemelä 2002. Menestyvä yritysverkosto – Verkostonrakentajan ABC

#### *Learning Methods*

Lectures, discussions, independent group work

#### *Assessment*

Assignment and the presentation of it

#### *Prerequisites*

Introduction to Business

#### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 4 cr

## **Family business and succession, 2 op KD07CHYR402 (study unit)**

### *Lecturers*

Taru Päivike, DSc (Econ. & Bus. Adm.)

### *Objectives*

Students will become familiar with key issues concerning family businesses, such as combining family and business, management and decision-making in a small business, and in particular, the planning and initiation of succession.

### *Content*

- Special features of a family business
- Board of Directors in a family business
- Management by both spouses
- Planning and initiating a succession from the point of view of ownership, responsibility of management, and the transfer of expertise

### *Literature / Study Material*

- Material distributed by the lecturer
- Koiranen: Juuret ja siivet. Akateeminen yrittäjäkoulu: [www.yrittajakoulu.com](http://www.yrittajakoulu.com)
- Heinonen (ed.). Yrityksen sukupolven- ja omistajanvaihdos. Tietosanoma
- Hautala (ed.). Vetäjä vaihtuu – opaskirja yrittäjäpolvenvaihdoksiin

### *Learning Methods*

Lectures, guest lecturers, case studies

### *Assessment*

The grade for the course comprises two parts: pair exam (70 %) and a case study (30 %). Both parts must be successfully completed to receive a grade for the course. An alternative way to complete the course is to draw up a plan for a succession for one's own family business.

### *Prerequisites*

Introduction to Business

### *Further Information*

The course is especially suitable for students who have a background in family business and who intend to continue the family business, and for those who are interested in becoming the owner of a family business.

## **Business growth and development, 2 op KD07CHYR403 (study unit)**

### *Lecturers*

Kirsti Sorama, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will be familiar with the existing challenges of increasing business from the point of view of an SME. Upon completion of the course, students will be competent in compiling a strategy to increase the business in an SME.

### *Content*

- Further developing a company's existing business idea
- Sources of growth
- Internal and external strategies of growth
- Phases of growth
- Financing growth
- Managing growth and challenges of growth
- Role of consultation in the promotion of the growth of an SME

### *Literature / Study Material*

- Material distributed by the lecturer
- Virtanen M. 2001. Liiketoiminnan suunnittelu ja kasvurahoitus ([www.yrittajakoulu.com](http://www.yrittajakoulu.com))
- Routamaa V. 2001. Yrityksen kasvu ja organisoituminen ([www.yrittajakoulu.com](http://www.yrittajakoulu.com))

- Laukkanen. (ed.). 2007. Kasvuyritys. Talentum.

### *Learning Methods*

Lectures and group work

### *Assessment*

The grade for the course is based on the group work.

### *Prerequisites*

Introduction to Business

### *Further Information*

Research and development: 2 cr

## **Electronic business, 12 op KD07CH03 (study entity)**

Students will gain an overview of online business and understand its prerequisites, opportunities and problems in business. They will acquire knowledge of the production processes associated with online services and be familiar with different areas of content production, such as operational and graphic design as well as technical implementation. Students will also be able to take usability factors into consideration, and know how to plan, implement and develop the online services of a company or other organization.

## **Implementation of a Company Website, 4 op KD07CH03001 (study unit)**

### *Lecturers*

Osmo Mäkinen, MSc

### *Objectives*

Students will have command of the design and implementation of a functional, interactive service website using a standard mark-up language and style sheets. They will also be competent in using a desktop publishing programme in the implementation and publish the website on a server.

### *Content*

- Company websites as part of online business
- Usability and access
- Designing process of an online service
- XHTML language
- CSS language
- Basics of XML
- RSS input as part of online services
- Using desktop publishing programmes to create online services
- Publishing a website

### *Literature / Study Material*

Material provided by the teacher.

### *Learning Methods*

- Lectures
- Supervised practice on the computer
- Assignment

### *Assessment*

- Active participation and continuous demonstration of abilities
- Assignment
- Assessment on a scale of 1–5

### *Prerequisites*

Introduction to Online Business

### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 2 cr

## **Use of Databases in Online Services, 2 op KD07CH03002 (study unit)**

### *Lecturers*

Osmo Mäkinen, MSc

### *Objectives*

Students will be familiar with the various ways of using and of the technical implementations of databases in online services. They will be capable of creating a database and link it to an online service facility. They will be able to publish this type of service on the Internet.

### *Content*

- Designing and creating a database
- Designing the user interface of a database for an Internet browser
- Testing a database and publishing it on a server

### *Literature / Study Material*

Material provided by the teacher

### *Learning Methods*

- Lectures and exercises on a computer
- Assignment

### *Assessment*

- Active participation
- Assignment
- Assessment on a scale of 1–5

### *Prerequisites*

Introduction to Online Business

### *Languages of Instruction*

Finnish

## **Graphics of online services, 3 op KD07DVV013 (study unit)**

### *Lecturers*

Riitta Ylihärä

### *Objectives*

Students will be familiar with the more important forms of computer graphics and ways of using them in online services. They will be able to create and edit online graphics applications using appropriate devices and programs: scanners, digital cameras and image processing programs.

### *Content*

- Introduction to computer graphics
- Use of a vector graphics programme
- Use of a pixel graphics programme
- Animated graphics (e.g. Flash animation in an online service)
- Publishing in PDF format

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Supervised exercises on the computer and independent assignments

### *Assessment*

- Active participation

- Independent assignments
- Computer-based exam
- Grades: 1–5

#### *Prerequisites*

Introduction to Information Technology

#### *Languages of Instruction*

Finnish

### **Electronic Business, 3 op KD07CH03003 (study unit)**

#### *Lecturers*

Osmo Mäkinen, MA

#### *Objectives*

Upon completion of the course, students will be familiar with the concepts and opportunities of electronic business. They will be able to assess the usability of existing electronic stores. Students will be competent in designing and implementing an electronic store containing the basic shopping functions as a part of the online services of a company.

#### *Content*

- Concepts pertaining to electronic business
- Specifications and usability of an electronic store
- Most common e-commerce software
- Planning, implementing and maintaining an electronic store

#### *Literature / Study Material*

- Lecturer's material
- Online material

#### *Learning Methods*

- Lectures
- Supervised practice on the computer
- Independent assignments

#### *Assessment*

- Active participation
- Assignment
- Assessment on a scale of 1–5

#### *Prerequisites*

Introduction to Online Business

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research and development: 1 cr

### **International business 1, 15 cr KD07CIB01 (study entity)**

- Objectives: Students will understand the fundamentals of international business. This includes various modes of operation in international markets, the strategies of internationalization and the cultural environment of international business. Upon completion of the studies in this module, students will be capable of evaluating, planning and executing decisions in the above-mentioned areas.
- Course units: International Business Operations (5 cr), Internationalization of an Enterprise (5 cr), Cross-Cultural Business (5 cr)

## **International business operations, 5 cr KD06BNMA630 (study unit)**

### *Lecturers*

Paula Takamaa, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will be familiar with the various forms and modes of international business operations, their advantages and disadvantages particularly from the viewpoint of small and medium-sized companies.

### *Content*

- Exporting, licensing, franchising
- Direct foreign investments
- Pros and cons of mentioned forms of business

### *Literature / Study Material*

To be announced at a later date.

### *Learning Methods*

Lectures and groupwork

### *Assessment*

To be announced at a later date.

### *Prerequisites*

Introduction to Business

### *Languages of Instruction*

English

## **Internationalisation of the firm, 5 cr KD06BNMA640 (study unit)**

### *Lecturers*

Jukka-Pekka Luostarinen, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will understand the dynamics and strategies of internationalising a company, particularly from the viewpoint of an SME.

### *Content*

The course involves discussion of the strategies for internationalising companies.

### *Literature / Study Material*

To be announced at a later date.

### *Learning Methods*

Lectures and groupwork

### *Assessment*

To be announced at a later date.

### *Prerequisites*

Introduction to Business

## **Cross-cultural business, 5 cr KD06BNMA650 (study unit)**

### *Lecturers*

Cory Isaacs, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will understand the dynamics of cross-cultural interaction in business contexts and acquire skills in confronting various cultures and culture shock in professional environments.

### *Content*

- Business etiquette
- Export marketing
- Intercultural communication
- Negotiations in business
- National characteristics

#### *Literature / Study Material*

Gesteland Richard R. Cross–Cultural Business Behavior Copenhagen Business School Press. Online EBRARY book, 374 pages

#### *Learning Methods*

Lectures and group work

#### *Assessment*

Scale 1–5

#### *Prerequisites*

Intercultural Communication: 2 cr

#### *Languages of Instruction*

English

## **International business 2, 9 cr KD07CIB02 (study entity)**

Objectives: Students will learn how to manage strategic management issues in the areas of marketing, finance, production, administration and logistics in a simulated environment. In addition, students will deepen their knowledge of a chosen topic, e.g. based on a certain market area. Course units: Intopia (6 cr), and (3 cr) from the following courses: Business-to-Business Marketing (3 cr), Japanese Market Management (2 cr), Marketing Communication in a Multicultural Environment (3 cr), Seminar on Business in the Baltic Area (2 cr), Seminar on Business in Scandinavia (2 cr) + additional area-specific seminars

## **Logistics, 3 cr KE16BUTU123 (study unit)**

#### *Lecturers*

Jorma Imppola, MSc (Eng.)

#### *Objectives*

The course deepens students' knowledge of logistics and how to plan logistics, customer service, and recycling. Upon completion of the course, students will possess a comprehensive picture of materials flows and their optimal planning and control with regard to both functional and economical aspects. Furthermore, students will have knowledge of logistics research.

#### *Content*

- Transportation and its significance, logistic chain and distribution
- Transportation planning and transportation risk management
- Packing
- Inventories and their economical and functional significance
- Physical storage, the connection between storage and transportations
- Significance, agility and costs of customer service
- Customer service strategies and service pricing
- Logistics and recycling

#### *Literature / Study Material*

- Lecture materials
- Other materials announced by the lecturer

#### *Learning Methods*

- Lectures
- Independent study
- Writing assignment which is presented at the seminar during the last session

#### *Assessment*



- Examination: 50 %
- Writing assignment and seminar presentation: 50 %

*Languages of Instruction*  
English

## **Export and import operations, 3 cr KD07DVUL111 (study unit)**

*Lecturers*  
Paula Takamaa, MSc (Econ. & Bus. Adm.)

*Objectives*  
Students will be competent in assessing a company's readiness to export/import and in initiating the entire export/import process step by step. Students will possess knowledge of the practical aspects of the process such as documentation, insurance and payment procedures.

*Content*

- Export/import practices and documents
- Terms of delivery
- Payments in foreign commerce

*Literature / Study Material*

- ICC 2008: Guide to Export–Import Basics: Vital Knowledge for Trading Internationally (specified chapters)
- Handouts and other materials as indicated by the lecturer

*Learning Methods*

- Lectures
- Import/export case work
- Independent study
- Group work

*Assessment*

- Active participation
- Project assignment
- Written examination

*Languages of Instruction*  
English

## **International human resources, 3 cr KD06BNMA660 (study unit)**

*Lecturers*  
Cory Isaacs, MSc (Econ. & Bus. Adm.)

*Objectives*  
Students will acquire knowledge of the challenges of international human resource management and of the ways of creating a successful human resource policy for an international company.

*Content*

- Challenges of international human resource management
- Recruitment, selection, training, compensation, performance appraisal
- Adjustment and repatriation of international employees
- Internationalisation process of companies, and human resource issues

*Literature / Study Material*  
Harzing A–W. & Ruysseveldt J–V. 2004. International Human Resource Management.

*Learning Methods*  
Lectures and group exercises during lessons, report and presentation

*Assessment*

Report, presentation and evaluation, as well as group exercises during lessons

*Prerequisites*

Introduction to Business

*Languages of Instruction*

English

**Simulation in strategic marketing management (MARKSTRAT), 3 cr  
KD07BMMA175 (study unit)**

*Lecturers*

- Sirkku Rantalainen, MSc (Econ.)
- Lecturers from partner universities

*Objectives*

The aim of the course is to teach an international team of students how to manage an enterprise in a multicultural environment. The course emphasises strategic management in marketing via simulation. The course is organised in participating universities during alternating years as a one-week intensive course in January or February.

*Content*

The course discusses market analysis, the choice of target groups, positioning, utilisation of market research in decision-making, product development, planning the marketing mix, and budgeting.

*Literature / Study Material*

Manual: Markstrat for Executives

*Learning Methods*

Lectures, small-group work, simulation and presentation

*Assessment*

Assessment is based on the simulation process, presentations and reports.

*Languages of Instruction*

English

*Further Information*

Further information can be obtained from Sirkku Rantalainen.

**European marketing surveys, 3 cr  
KD07BMMA176 (study unit)**

*Lecturers*

- Sirkku Rantalainen, MSc(Econ.)
- Professors from co-operating universities

*Objectives*

Students will be competent in applying the concepts and statistical techniques involved in marketing surveys. They will work together with others in an international group context and learn about cultural differences in the framework of a realistic marketing project.

*Content*

The students, coming from six European countries (5 persons maximum), are mixed into international groups and they will construct a complete, modern consumer marketing survey (possibly from the point of view of an existing company). The students will run an Internet survey using an international e-mail database.

*Literature / Study Material*

Articles and literature to be announced.

*Learning Methods*

- Lectures
- Teamwork
- Research project

### *Assessment*

Teamwork: student's contribution, questionnaire, analysing of results and final presentation.

### *Prerequisites*

Introduction to Statistics and Marketing Research

### *Languages of Instruction*

English

## **Practical Spanish grammar, 3 op KD07CES0101 (study unit)**

### *Lecturers*

Ilpo Kempas, PhD

### *Objectives*

Students will become familiar with Spanish grammar and learn to apply standard language grammar to their own linguistic output. Having completed the course, students will

- be able to apply Spanish grammar to their own Spanish usage, and
- be able to search for information about grammar issues.

### *Content*

- selective study of the different areas of the Spanish grammar, focusing on issues requiring special attention
- grammatical accuracy
- special issues pertaining to grammar

### *Literature / Study Material*

Grammar book (to be specified later)

### *Learning Methods*

- Classroom instruction
- Written exercises
- Translation exercises

### *Assessment*

- Participation in classroom instruction
- Completion of written exercises
- Written examination

All parts must be successfully completed to receive a grade for the course.

### *Languages of Instruction*

Finnish and Spanish

## **Spanish pronunciation and listening skills, 3 op KD07CES0102 (study unit)**

### *Lecturers*

Ilpo Kempas, PhD

### *Objectives*

Students will be familiar with the standard pronunciation of Spanish and the geographical variation in the Spanish language, as well as learn to understand the different geographic varieties. Having completed the course, students will

- be able to pronounce Spanish according to the standard pronunciation,
- be familiar with the basics of Spanish pronunciation, and
- understand different geographic varieties.

### *Content*

- Basics of standard Spanish pronunciation
- Geographic variation in pronunciation (Peninsular Spanish and American Spanish)

### *Literature / Study Material*

Material distributed by the teacher.

### *Learning Methods*

- Classroom instruction
- Listening, pronunciation and oral exercises

### *Assessment*

- Participation in classroom instruction
- Completion of oral exercises
- Written examination

All parts must be successfully completed to receive credit for the course.

### *Languages of Instruction*

Finnish and Spanish

## **Culture and business in Spanish-speaking countries, 6 op KD07CES0103 (study unit)**

### *Objectives*

Students will be familiar with the culture and business of the Spanish-speaking world.

### *Content*

- Cultures in Spain and Latin America
- Business environment in Spain and Latin America

## **Studies supporting research work, 9 op KD07CTU (study entity)**

Objectives: Students will develop their professional profile and prepare for the labour market. They will possess knowledge in the fundamentals of research work and be familiar with the most significant R&D methods related to their thesis. Students will also be able to describe their research process, justify the choices they have made and produce a research report. Courses common to all:

- Research Work and Academic Writing
- Thesis Seminar

One of the following alternatives must be chosen:

- Qualitative Research
- Quantitative Research
- Initiating a Development Project

## **Basics of statistics, 3 op KD07APT015 (study unit)**

### *Lecturers*

Hannu Tuuri, MSc (Pol. Sc.)

### *Objectives*

Students will understand the basic concepts of statistics and learn to acquire data and use existing statistics. They will be competent in processing statistical data and presenting data using parameters, charts and diagrams with the Excel programme. Students will also know how to analyse the statistics they acquire.

### *Content*

- Basic concepts
- Acquisition of research data and methods of sampling
- Scales
- Parameters
- Correlations
- Graphic presentation
- Excel, Pivot charts, and other programmes

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and exercises (both in class and as homework)

### *Assessment*

Exam and exercises

### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 3 cr

## **Research work and academic writing, 2 op KD07CPTU010 (study unit)**

### *Lecturers*

- Ulla Autio, LSc (Econ. & Bus. Adm.)
- Ilpo Kempas, PhD

### *Objectives*

Students will possess knowledge of the fundamentals of research work and research processes. They will be capable of reporting the results of their research or development project.

### *Content*

The course comprises three parts, all of which must be successfully completed to receive a grade for the course: 1. Research work

- Introduction to research and development work: research topic, research process, principal methods

#### 2. Information acquisition

- Review of information acquisition = participation in information acquisition workshops (3 h) in which students seek thesis-related information with guidance by the teacher.

#### 3. Academic writing

- Requirements of scientific writing, academic style, language form, process writing, use of sources, citation, structure of the thesis

### *Literature / Study Material*

- Seinäjoki University of Applied Sciences: Instructions for Writing a Thesis.
- Knivilä, Lindblom-Ylänne and Mäntynen. 2007. Tiede ja teksti. WSOY Oppimateriaalit Oy.

### *Learning Methods*

Lectures, exercises, workshops, and reports

### *Assessment*

- Pass/fail
- Active participation
- Completed assignments
- Exam

### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 2 cr

## **Thesis seminar, 2 op KD07CPTU020 (study unit)**

### *Lecturers*

- Ulla Autio, LSc (Econ. & Bus. Adm.)
- Terhi Kortesmäki, LSc (Econ. & Bus. Adm.)
- Erkki Kytönen, DSc (Econ. & Bus. Adm.)

#### *Objectives*

Students will present their research topic and research results and assess the research process of other students.

#### *Content*

Seminar work: discussion of research topic and plan and presentation and processing of the research results in a group

#### *Assessment*

Pass/fail

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research and development: 2 cr

### **Quantitative research, 2 op KD07CPTU002 (study unit)**

#### *Lecturers*

Tarja Heikkilä, MA

#### *Objectives*

Students will know how to process research material using statistical applications, how to interpret and report their results. They will deepen their knowledge of essential statistical tests to assist them in selecting appropriate statistical methods of analysis for processing their material and finding correlations and other interdependences between the variables.

#### *Content*

- SPSS software
- Statistical methods suitable for the research material of the students participating in the course (for instance, presentation of the results of question groups, variance analysis, T-test, nonparametric tests)
- Data- and phase-specific guidance for students in small groups or individually

#### *Literature / Study Material*

- Heikkilä T. 2008. Tilastollinen tutkimus.
- Additional material provided by the teacher

#### *Learning Methods*

Computer-based lessons, assignments and exercises

#### *Assessment*

Participation in lectures and an assignment: pass/fail

#### *Prerequisites*

Statistical Processing

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research and development: 2 cr

### **Qualitative research, 2 op KD07BKTU110 (study unit)**

#### *Objectives*

Students will be competent in compiling a qualitative research plan, gathering the required material and analysing it using various techniques.

#### *Content*

Features and process in qualitative research

- What is qualitative research
- Differences between qualitative and quantitative research
- Types of qualitative research
- Methods for gathering data for a qualitative study (interviews)
- Analysing qualitative data
- Reporting a qualitative study
- Reliability of a qualitative study
- Examples of qualitative studies

#### *Literature / Study Material*

Material announced by the teacher.

#### *Learning Methods*

Lectures, exercises and an assignment

#### *Assessment*

- Pass/fail
- Active participation
- Assignments

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research and development: 2 cr

### **How to implement a development project, 2 op KD07BKTU113 (study unit)**

#### *Objectives*

The aim of the course is to support the thesis process, which involves a development project. Upon completion of the course, students will understand the difference between research work and a development project. They will be familiar with the objectives and methods involved in development work.

#### *Content*

- Meaning and purpose of development work
- Methods for the implementation of a development project
- Reporting and evaluation of the project

#### *Literature / Study Material*

Vilkka H. & Airaksinen T. 2004. Toiminnallinen opinnäytetyö. Tammi.

#### *Learning Methods*

Lectures, exercises, plan for one's own development project

#### *Assessment*

Pass/fail

#### *Languages of Instruction*

Finnish

### **Language studies, 11 op KD07BKIELET (study entity)**

See information about language studies at KD07AKIELET (Basic studies).

### **Swedish business communication, 3 op KD07CYRU112 (study unit)**

#### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus. Adm.)

#### *Objectives*

Students will have both written and oral competence in Swedish and be able to obtain and utilise field-related information and mediate it to others. Upon completion of the course, students will

- be competent in creating and maintaining business relations in Swedish.
- be able to write e-mails and business-related documents in Swedish,
- be competent in using tools to look for information from various sources in Swedish, and
- be familiar with the differences in the business cultures in Finland and Sweden.

### *Content*

- Messages and documents, e.g. enquiries and invitations to tender, offers, orders and complaints (in writing and verbally)
- Differences between the business cultures in Finland and Sweden
- Initiating and maintaining communication related to business relationships, e.g. fairs, company guests

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Oral exercises: dialogues, group discussions and presentations
- Written assignments
- Listening comprehension
- Degree-specific learning methods

### *Assessment*

- Active participation in contact teaching
- Active use of oral skills (oral presentations and dialogues)
- Written exercises and assignments
- Exam

All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Business Swedish

### *Languages of Instruction*

Finnish and Swedish

### *Further Information*

Students may receive credit for research and development depending on their degree programme.

## **English business communication, 3 op KD07CYEN161 (study unit)**

### *Lecturers*

Marja Matikka, MA

### *Objectives*

Students will possess the readiness they need to cope with situations in both spoken and written business communication and be able to take into consideration cultural differences. In the course for adult education students, professional orientation will be taken into consideration. Having completed the course, students will

- be competent in writing business letters,
- be competent in writing an invitation, an agenda, minutes of a meeting,
- be familiar with the procedures of a meeting,
- be competent in making travel arrangements and dealing with business visits, and
- be competent in managing business negotiations and taking into consideration cultural differences.

### *Content*

- Business communication, business correspondence (enquiries, requests for quotation, orders, confirmations, complaints, payment collection letters)
- oral presentations
- intercultural differences in communication
- meetings, negotiations, telephone communication
- Adult education course: familiarisation with companies using the Internet

### *Literature / Study Material*

Niskanen-Vetter-Urbom: Business Express (WSOY 2008) and material provided by the teacher.



### *Learning Methods*

- Spoken and written exercises
- Listening exercises
- Pair and group work
- Lectures

### *Assessment*

- Active participation in lessons
- Completion of the written and spoken exercises
- Final exam

All tasks must be successfully completed to receive a grade for the course.

### *Prerequisites*

Business English

### *Languages of Instruction*

Finnish and English

## **Att tala svenska, 2 op KD07CYRU220 (study unit)**

### *Lecturers*

Jaana Store, MA

### *Objectives*

Students will be able to carrying on a conversation in Swedish relaabout everyday issues, work and their professional field.

### *Content*

- Oral exercises based on given topics
- Conversation exercises related to everyday issues, working life and current topics about the students' professional field

### *Literature / Study Material*

Material collected by the teacher and the students

### *Learning Methods*

Oral exercises, vocabulary related to a topic based on e.g. recordings, videos and articles

### *Assessment*

Continuous assessment, oral examination and/or interview

### *Prerequisites*

Business Swedish I

### *Languages of Instruction*

Finnish and Swedish

## **Swedish–Finnish translation, 2 op KD07CYRU140 (study unit)**

### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus.Adm.)

### *Objectives*

Students will be competent in translating texts related to the fields of business and administration from Swedish to Finnish, taing the structural differences between the languages into consideration.

### *Content*

Swedish–Finnish translation and interpretation of texts on current topics dealing with social life and business; special attention is paid to the structural differences of the languages.

### *Learning Methods*

Lectures, translation exercises and vocabulary

### *Assessment*

- Active participation in tuition and exercises
- Written examination using dictionaries

### *Prerequisites*

Business Swedish

### *Languages of Instruction*

Finnish and Swedish

## **Swedish for accounting, 2 op KD07CYRU905 (study unit)**

### *Lecturers*

Jaana Store, MA

### *Objectives*

Upon completion of the course, students will understand the concepts associated with accounting, banking and financing in Swedish. They will also understand texts and spoken language in their professional field and be able to communicate both orally and in writing about field-related issues.

### *Content*

- Basic concepts of accounting, banking and financing
- Texts related to business economics and to banking and financing
- Annual reports of enterprises
- Services of banks and financing institutes

### *Literature / Study Material*

Material announced by the teacher.

### *Learning Methods*

Contact lessons, oral and written exercises

### *Assessment*

- Active participation in tuition and exercises
- Demonstration of written and oral skills
- Written examination

### *Prerequisites*

Business Swedish I

### *Languages of Instruction*

Finnish and Swedish

## **Swedish for administration, 2 op KD07CYRU181 (study unit)**

### *Lecturers*

Jaana Store, MA

### *Objectives*

Students will become familiar with the basic concepts related to corporate and public administration and to societal activities and organisations. They will understand field-related texts and spoken language and have command of different service and communication situations both orally and in writing.

### *Content*

- Basic concepts and functions of corporate and public administration
- Texts related to corporate and public administration
- Activities of organisations
- Job application situations
- Meetings

### *Literature / Study Material*

Material announced by the teacher.

### *Learning Methods*

- Contact lessons
- Oral and written exercises

### *Assessment*

- Participation in tuition and exercises
- Written and oral output
- Written examination

### *Prerequisites*

Business Swedish I

### *Languages of Instruction*

Finnish and Swedish

## **Swedish for marketing, 3 op KD07CYRU170 (study unit)**

### *Lecturers*

Päivi Seppälä, MSc (Econ. & Bus.Adm.)

### *Objectives*

Students will master the basic concepts of marketing, sales and advertising. They will be able to communicate interactively and cope both orally and in writing with various duties in their professional field.

### *Content*

- Texts related to marketing and sales
- Basic concepts of marketing and sales
- Exhibitions and product demonstrations
- Sales discussions and graphic presentations
- Advertising

### *Literature / Study Material*

To be announced by the lecturer.

### *Learning Methods*

- Lectures
- Oral and written exercises
- Listening comprehension
- Computer-assisted exercises
- Working in pairs and groups

### *Assessment*

- Active participation in lectures
- Oral and written exercises
- Group presentation
- Written examination

### *Prerequisites*

Business Swedish

### *Languages of Instruction*

Finnish and Swedish

## **Study trip to Sweden, 2 op KD07CYRU301 (study unit)**

### *Objectives*

Students will become familiar with the Swedish business life and culture. They will be able to arrange company visits and meetings and makes reports about them. Students will be competent in independently seeking field-related information in Swedish and in utilising it.

### *Content*

Field trip to Sweden: company visits and familiarisation with Swedish business culture

- Meetings for planning the field trip
- Contacting the companies and organising company visits
- Other trip arrangements such as visiting the travel agency
- Case exercises during the trip
- Reporting after the journey

### *Literature / Study Material*

Homepages of the target companies

### *Learning Methods*

- Arrangements for the trip and company visits in practice
- Company visits
- Familiarisation with culture
- Oral and written exercises

### *Assessment*

- Active participation in the travel arrangements and during the company visits
- Oral and written reports

### *Prerequisites*

Business Swedish

### *Languages of Instruction*

Swedish and Finnish

## **Swedish listening, speaking and writing skills, 2 op KD07CYRU211 (study unit)**

### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus. Adm.)

### *Objectives*

Students will understand normal spoken language, are able to take notes from what they hear and discuss the topics.

### *Literature / Study Material*

Material distributed by the teacher.

### *Learning Methods*

Listening exercises, oral and written assignments

### *Assessment*

Listening exercises, various oral and written assignments, a listening comprehension test

### *Prerequisites*

Business Swedish I

### *Languages of Instruction*

Finnish, Swedish

### *Further Information*

Location: Business School

## **The Nordic Countries and the EU, 3 op KD07DVVK001 (study unit)**

### *Lecturers*

Coordinator: Savonia University of Applied Sciences

### *Objectives*

Students will become familiar with the principles of operation and the importance of the EU for the Nordic countries from the economic perspective. They will be competent in acquiring information and reading texts on EU-related topics and in communicating on those issues in Swedish.

### *Content*

- Functions and structure of the EU
- Causes and effects of joining the EU/staying out of the EU in the Nordic countries
- Importance of the EU for economy and competitiveness
- Nordic Dimension

### *Literature / Study Material*

Online material

### *Learning Methods*

Online course: information acquisition, reading and writing exercises, discussions and commenting based on online assignments.

### *Assessment*

Assignments and a written examination; the participation in the exam requires the submission of the online assignments in accordance with the given timetable.

### *Prerequisites*

Compulsory studies in Swedish required by the degree programme; e.g. Business Swedish

### *Languages of Instruction*

Swedish

### *Further Information*

There are three institutions involved in the online education programme for Swedish: Helia, Savonia and Seinäjoki University of Applied Sciences. Each institution has their own courses, which has approximately 20 of their own students and about 4 to 6 students from the other participating institutions. More information is available from Päivi Seppälä. Location: Seinäjoki UAS Business School

## **Välfärdsstaterna i Norden, 3 op KD07DVVK004 (study unit)**

### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus.Adm.)

### *Objectives*

Students will familiarise themselves with the societies of the Scandinavian countries with particular focus on Sweden. They will also gain general knowledge of Nordic governments, social systems, such as education and health care, employment and industries. They will also learn about the Scandinavian media and be competent in acquiring and reading information on matters related to the above-mentioned subjects in online newspapers. They will also be competent in discussing these topics.

### *Content*

- Scandinavian systems of government (particularly Sweden)
- Social systems, such as education and health care
- Employment and industries
- Media and online newspapers

### *Literature / Study Material*

Online material

### *Learning Methods*

Online course: information acquisition, reading and writing exercises, discussions and commenting based on online assignments.

### *Assessment*

Exercises and a written examination; the participation in the exam requires the submission of the online assignments in accordance with the given timetable.

### *Prerequisites*

Compulsory Swedish studies required by the degree programme; e.g. Business Swedish

### *Languages of Instruction*

Swedish

*Further Information*

There are three institutions involved in the Swedish web education programme: Helia, Savonia and Seinäjoki University of Applied Sciences. Each institution has their own courses, which has approximately 20 of their own students and about 4 to 6 students from the other participating institutions. More information is available from Päivi Seppälä. Location: Seinäjoki UAS Business School

## **Scandinavian literature, arts and music, 3 op KD07CRU500 (study unit)**

*Objectives*

Students will be introduced to the various aspects of the Icelandic, Norwegian, Swedish and Danish cultures. They will also gain general knowledge of the literature, visual arts and music in these countries and be competent in acquiring information on related issues and discuss them.

*Content*

Icelandic, Norwegian, Swedish and Danish literature, visual arts and music

*Literature / Study Material*

Online material and other material announced by the teacher

*Learning Methods*

Online course: information acquisition, reading and writing exercises, online discussions and comments.

*Assessment*

Assignments and a written examination; the participation in the exam requires that students have submitted their online assignments in accordance with the given schedule.

*Prerequisites*

Compulsory studies in Swedish required by the degree programme; e.g. Business Swedish I

*Languages of Instruction*

Swedish

*Further Information*

There are three institutions involved in the Swedish online education programme: Helia, Savonia and Seinäjoki University of Applied Sciences. Each institution has its own courses which enrol approximately 20 of their own students and about 4 to 6 students from the other participating institutions. For more information, contact Päivi Seppälä. The course is provided by the Business School.

## **Swedish, preparatory course, 2 op KD07DWRU050 (study unit)**

*Objectives*

Students will improve their communication skills in Swedish, both spoken and written skills. They will expand their vocabulary and master the basic structures of Swedish. They will be competent in writing a text that varies in structure. Students will also acquire a positive attitude toward developing their language skills.

*Content*

- Basic language structures
- Texts
- Listening and oral exercises
- Essays

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

- Lectures
- Oral and written assignments
- Exercises in the language laboratory
- Computer-assisted exercises

*Assessment*

- Active participation in lessons and exercises
- Written examination

*Languages of Instruction*  
Finnish and Swedish

*Further Information*

The course is compulsory for the students who have a vocational or business college diploma but no matriculation exam certificate or diploma from upper secondary school. These students will receive the credits from the course. Other students can also participate in this course, but it will not accrue any credits.

**Financial English, 2 op**  
**KD07CYEN130 (study unit)**

*Lecturers*

Päivö Laine, PhD

*Objectives*

Students will understand the basic concepts of accounting, banking and financing. They will be competent in communicating in subject-related situations orally and in writing and read texts on accounting topics.

*Content*

- Accounting terminology: bookkeeping, financial statements, executive accounting
- Banking and financing terminology
- Annual reports and financial reviews

*Literature / Study Material*

Material provided by the teacher.

*Learning Methods*

- Contact tuition
- Oral and written exercises
- Case study

*Assessment*

- Continuous assessment
- Oral and written output
- Written exam

**Business Management English, 2 op**  
**KD07CYEN140 (study unit)**

*Objectives*

Students will understand basic concepts in English related to business administration. They will understand field-related texts and speech dealing with related topics and can discuss them.

*Content*

- Terminology associated with business administration
- Field-related texts and articles

*Literature / Study Material*

Material announced by the teacher.

*Learning Methods*

Contact classes, oral and written exercises

*Assessment*

Continuous assessment, oral and written output, a written examination

**Marketing English, 3 op**  
**KD07CYEN120 (study unit)**

*Lecturers*

Marja Matikka, MA

*Objectives*

Students will acquire new English vocabulary and understand the concepts of marketing in English. They will also

acquire skills for coping with marketing situations in English.

#### *Content*

The course comprises texts, exercises and recordings associated with marketing, international fairs and exhibitions, and product demonstrations.

#### *Literature / Study Material*

Material to be announced by the lecturer.

#### *Learning Methods*

Written and oral exercises, listening comprehension, lectures

#### *Assessment*

Continuous assessment and a written exam

#### *Languages of Instruction*

English and Finnish

#### *Further Information*

The course will be offered during academic year of 2009–2010.

### **Spoken English, 2 cr KD07CWEN113 (study unit)**

#### *Lecturers*

Cory Isaacs, BA

#### *Objectives*

The aim of the course is encourage students to speak English with confidence and train them in listening comprehension. Upon completion of the course, students will

- be able to actively take part in conversations,
- comprehend spoken English and the various pronunciations, and
- exchange thoughts and opinions with others using the English language.

#### *Content*

- Small-talk for business
- Giving advice and instructions
- Presenting and discussing a topic
- Article discussions

#### *Literature / Study Material*

Teacher's own material and students' own material

#### *Learning Methods*

- Dialogues
- Discussions
- Listening exercises
- Role play

#### *Assessment*

- Active participation in classroom work
- Oral test

#### *Further Information*

Location: Business School

### **Finnish–English business translation, 2 op KD07CYEN190 (study unit)**

#### *Lecturers*

Ilpo Kempas, PhD

#### *Objectives*

Students will be competent in translating texts related to business and economics from Finnish to English and become



aware of the particular challenges Finns have in producing English.

#### *Content*

- Language of business
- Differences between Finnish and English
- Solutions to translation problems

#### *Literature / Study Material*

Material provided by the teacher.

#### *Learning Methods*

- Contact teaching
- Oral and written exercises

#### *Assessment*

- Continuous assessment
- Oral and written exercises
- Written translation exam (the use of dictionaries permitted)

#### *Languages of Instruction*

Finnish and English

## **North American studies, 3 op KD07CYEN291 (study unit)**

#### *Lecturers*

Cory Isaacs, MSc

#### *Objectives*

Upon completion of the course, students will possess advanced knowledge of the Canadian and American economies, the Canadian provinces and American states, current political issues, NAFTA, and North America's place in world affairs. Furthermore, students will be acquainted with the culture and identity of North America: symbols, myths, cultural expressions, sport, music, film, art and literature).

#### *Content*

This course provides students with an introduction to North America. The course focuses on:

- Contemporary North America
- Historical North America
- North American politics
- North American economy
- North American culture
- Role of French-speaking Canada
- North America and the future
- Finnish immigration to North America

#### *Literature / Study Material*

Teacher's own material plus other material to be announced.

#### *Learning Methods*

- Lectures
- Individual study project to be shared
- Research paper

#### *Assessment*

- Active participation
- Written final exam
- Presentation
- Research paper

#### *Languages of Instruction*

English

### *Further Information*

Location: Seinäjoki Business School

## **British Studies, 3 op KD07DWEN112 (study unit)**

### *Lecturers*

Marja Matikka, MA

### *Objectives*

Students will be familiar with the background information that is needed in international contacts with Britain.

### *Content*

- British society, culture and history
- Intercultural business communication

### *Literature / Study Material*

- James O'Driscoll: Britain. Oxford University Press
- Material to be announced by the teacher, partly on the Internet

### *Learning Methods*

- Lectures
- Contact tuition
- Research project

### *Assessment*

- Active participation
- Research project
- Written final exam

### *Languages of Instruction*

English

### *Further Information*

This course takes place on Thursday afternoons starting at 13.50 or 14.15 and notified. Location: Seinäjoki UAS Business School

## **Writing skills, 2 cr KD07CYEN330 (study unit)**

### *Lecturers*

Cory Isaacs, BA

### *Objectives*

Students will learn to distinguish between formal and informal business communication. Upon completion of the course, students will

- be able to identify the differences between American and Finnish business messages
- be able to express themselves accurately in various styles of written communication, and
- become aware of the importance of writing tone.

### *Content*

- Memos
- Reports
- Summaries
- Business letters
- E-mails

### *Literature / Study Material*

Teacher's own material

### *Learning Methods*

Written exercises

### *Assessment*

Written test and portfolio

### *Languages of Instruction*

English

### *Further Information*

Classes on Thursdays starting at 2 pm in the Business School.

## **English for e-commerce, 3 cr KD07CYEN031 (study unit)**

### *Lecturers*

Päivö Laine, PhD

### *Objectives*

Upon completion of the course, students will be familiar with the language of electronic commerce and the various ways in which language is used for communication and interaction in online shopping and sales. Students will be expected to perceive the differences between their native language and the target language in communication related to e-commerce.

### *Content*

- Various formats available for communicating on websites
- Linguistic composition of an e-commerce webpage
- Differences between web-writing and print
- Grammatically correct language and appropriate terminology for online shopping
- Informative and persuasive use of language
- Structural, conceptual and cultural differences between the mother tongue and the target language in the context of e-commerce
- Translating and localizing e-commerce websites

### *Further Information*

Students take part in the course through the Moodle learning environment.

## **Communication on the Web, 2 cr KD07BNA110 (study unit)**

### *Lecturers*

Päivö Laine, PhD

### *Objectives*

Students will become aware of the communicative characteristics of the World Wide Web and be able to assess websites from the viewpoint of communication. They will increase their understanding of the WWW as a medium of business communication and develop their skills in web writing. Students will also develop their skills in using (the English) language to involve the user in the interaction process.

### *Content*

- Characteristics of the World Wide Web
- Communicative elements of web-pages
- WWW in business communication
- Communication in electronic commerce
- Characteristics of effective web writing
- Website structures
- Language-specific and cultural aspects

### *Literature / Study Material*

Course material is provided by the teacher.

### *Learning Methods*

- Distance learning on the Moodle platform
- Independent learning assignments

### *Assessment*

- Attendance
- Assignments

- Final exam

*Languages of Instruction*  
English

## **Introduction to business German, 3 op KD07BYSA001 (study unit)**

*Lecturers*  
Tuula Stenbacka, MA

### *Objectives*

Students will become familiar with terminology and topics associated with business German. They will enhance their knowledge of the essential structures of German. Upon completion of the course, students will

- be familiar with the terminology associated with economic life,
- be familiar with issues associated with communications studies, the working world and business, and
- have command of essential grammatical structures.

### *Content*

- Making introductions, introducing one's workplace and duties
- Situations in sales and purchasing
- Telling about one's free time
- Small talk

*Literature / Study Material*  
To be announced.

### *Learning Methods*

- Lectures
- Written and oral assignments
- Written exam

All parts of the course must be successfully completed to receive a grade for the course.

### *Assessment*

- Active participation in class work
- Written and oral assignments
- Written exam

### *Prerequisites*

Students are required to possess knowledge of German equivalent to that of the short course in upper secondary school. German I, II, III

*Languages of Instruction*  
Finnish and German

## **German for economics, 3 op KD07CHUL509 (study unit)**

*Lecturers*  
Tuula Stenbacka, MA

### *Objectives*

Students will become familiar with the language used in the business world, the culture and customs of people in the German-speaking countries. They will learn the oral and written language needed for communication in the working world and business. They will be competent in acquiring and utilising field-related information in German. Upon completion of the course, students will

- be competent in telling about themselves, their education and work experience,
- have the language skills needed to search and apply for a job in German,
- know how to tell about company they work for, their work environment and duties,
- know how to communicate in a customer-oriented manner, and
- identify and utilise field-related vocabulary and terminology.

### *Content*

- Telling about oneself and one's education
- Applying for a job, making a CV, job interviews
- Describing one's work environment and duties
- Telephone conversations
- E-mailing
- Education systems in Germany and Finland
- Knowledge about Finland

### *Literature / Study Material*

Rakkolainen & Tuomiala-Mäkelä & Bürkel: Deutsch im Berufsleben (Edita)

### *Learning Methods*

- Classroom teaching
- Oral and written exercises
- Listening comprehension

### *Assessment*

- Active participation in lessons
- Active use of oral and written language skills
- Approved exam
- Approved assignments

### *Prerequisites*

Lower-intermediate knowledge of German

### *Languages of Instruction*

Finnish and German

## **German for communication, 3 op KD07CYSA001 (study unit)**

### *Objectives*

Students will enhance their vocabulary needed in business. Students will be competent in using German in various situations in the business world, both in writing and orally. Students will also be competent in writing business letters and in using vocabulary needed to carry out importing activities. Upon completion of the course, students will

- be competent in using German in various situations of business communication,
- be competent in writing business letters, and
- be competent in communicating on the telephone.

### *Content*

- Obtaining contact with a business partner or organisation
- Business letters, e.g. inquiries, offers, orders, order confirmations
- Telephoning and e-mailing

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Classroom teaching
- Oral and written exercises

### *Assessment*

- Active participation in lessons
- Active practice of oral and written skills
- Exam
- Portfolio

### *Prerequisites*

Lower-intermediate skills

*Languages of Instruction*  
Finnish and German

## **German for communication 2, 3 op KD07CYSA002 (study unit)**

### *Objectives*

Students will expand on the knowledge they learned in the Wirtschaftskommunikation I course. Emphasis is placed on spoken communication. Upon completion of the course, students will

- be competent in using German in various situations of business communication, and
- be competent in utilising appropriate vocabulary and expressions in problem-solving and negotiation situations.

### *Content*

- Oral and written complaints and how to answer them
- Company presentations
- Sales and negotiation situations

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Classroom teaching
- Oral and written exercises

### *Assessment*

- Active participation in lessons
- Completion of oral and written exercises
- Oral presentation

All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Wirtschaftskommunikation I

*Languages of Instruction*  
Finnish and German

## **German 1, elementary course, 3 op KD07DWSA010 (study unit)**

### *Objectives*

Students will learn the basic structures of the German language, become familiar with German-speaking countries, their cultures and customs. They will be competent in communicating both orally and in writing in everyday situations. Upon completion of the course, students will

- be competent in telling about themselves and their studies
- be competent in describing job duties and work environment, as well as their working hours, and
- be competent in assisting and advising others during company visits.

### *Content*

- Introducing oneself, giving personal data: personal pronouns and the present tense
- Telling about one's studies: articles, negatives, numbers
- Working hours and duties: the clock, months and word order
- Company facilities: prepositions

### *Literature / Study Material*

- Kauppi & Simon: Fahrplan, teksti ja sanastot (Tammi)
- Kauppi & Simon: Fahrplan, kielioppi ja harjoitukset (Tammi)

### *Learning Methods*

Written and oral exercises

### *Assessment*

- Active participation in classroom teaching
- Written and oral exercises
- Two written exams

All parts must be successfully completed to receive a grade for the course.

## **German 2, continuation course, 3 op KD07DWSA020 (study unit)**

### *Objectives*

Students will learn to use the structures of the language more extensively, and they will expand their vocabulary. Upon completion of the course, students will

- be competent in ordering meals in a restaurant,
- know how to tell about their family and way of living, and
- be competent in telling about their hometown and country.

### *Content*

- Vocabulary pertaining to food, phrases to use in a restaurant: modal verbs
- Family relations and living: prepositions and imperatives
- Telling about one's hometown and country, giving directions: possessive pronouns

### *Literature / Study Material*

- Kauppi & Simon: Fahrplan, teksti ja sanastot (Tammi)
- Kauppi & Simon: Fahrplan, kielioppi ja harjoitukset (Tammi)

### *Learning Methods*

Oral and written exercises

### *Assessment*

- Active participation in lessons
- Oral and written exercises
- Two written exams

All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

German I, beginner's course or the corresponding level.

## **German 3, 3 op KD07CYSA801 (study unit)**

### *Objectives*

Students will reinforce their knowledge and command of the German language and learn more vocabulary and grammar. Upon completion of the course, students will

- be competent in making orders on the telephone, and
- be competent in reserving a hotel room, getting around at the airport and on public transportation when travelling.

### *Content*

- Vocabulary to use on the telephone: ordinal numbers and dates
- Reserving a hotel room: clauses and the past tense
- Travelling: perfect tense

### *Literature / Study Material*

- Kauppi & Simon: Fahrplan, teksti ja sanastot (Tammi)
- Kauppi & Simon: Fahrplan, kielioppi ja harjoitukset (Tammi)

### *Learning Methods*

Oral and written exercises

### *Assessment*

- Active participation in the lessons
- Oral and written assignments
- Two written exams

All parts must be successfully completed to receive a grade for the course.

## **German 4, 3 op KD07CYSA802 (study unit)**

### *Objectives*

Students will enhance their knowledge of vocabulary and learn words related to the field of business. They will understand and be competent in using essential vocabulary and structures when speaking and writing. Students will also become familiar with the cultures in German-speaking countries. Upon completion of the course, students will

- be competent in telling about their hobbies, leisure-time and business-related employment relationships and duties,
- know how to conduct themselves in job interviews, and
- be competent in identifying cultural differences when communicating with others.

### *Content*

- Hobbies and leisure-time: pronouns
- Job interviews and writing a CV: cases and verb forms
- Sales and purchasing situations: use of the adjective
- Cultural differences: expressions of politeness and conditionals

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Verbal and written exercises

### *Assessment*

- Active participation in lessons
- Active demonstration of oral skills
- Completion of written assignments
- Exam

All parts must be successfully completed to receive a grade for the course.

### *Languages of Instruction*

Finnish and German

## **German, spoken skills, 2 op KD07CYSA123 (study unit)**

### *Lecturers*

Tuula Stenbacka (MA) together with exchange students from Germany

### *Objectives*

Students will enhance their knowledge of vocabulary and prepare themselves for situations where they will need German, both in the working world and everyday life. Upon completion of the course, students will be competent in

- telling about their personal data,
- telling about their education,
- running errands, e.g. in the shops, various agencies and restaurants, and
- identifying cultural differences when communicating with others.

### *Content*

- Telling about one's education and workplace
- Hobbies
- Everyday routines
- Family, hometown
- Dealing with situations in various agencies



- Visits to German families – small talk – cultural differences
- Situations pertaining to travelling

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Verbal and written exercises

*Assessment*

- Active participation in the given exercises
- Approved completion of assignments

*Languages of Instruction*

German

**Kultur– und Landeskunde Online, 3 op  
KD07DWSA001 (study unit)**

*Lecturers*

Heli Simon, MA

*Objectives*

Students will be competent in obtaining information on the Internet using the German language, process this information, prepare summaries, essays, and other written outputs, and make a presentation in German.

*Content*

Germany, Austria and Switzerland:

- General knowledge of the countries
- Economic life
- Political systems
- Culture

*Literature / Study Material*

Online material

*Learning Methods*

Online course in the Moodle learning environment.

*Assessment*

- Learning assignments
- Final examination

*Prerequisites*

Three–year course at the upper secondary school or corresponding studies.

*Languages of Instruction*

German

*Further Information*

heli.simon@seamk.fi The course is provided by the Business School.

**Spanish 1, 3 op  
KD07CYES010 (study unit)**

*Lecturers*

Ilpo Kempas, PhD

*Objectives*

Students will learn the foundations of the Spanish language. They will understand and be able to use key vocabulary and structures of the language verbally and in writing. Having completed the course, students will

- be able to give their personal data,
- be competent in everyday communication situations in the target language,
- be able to describe their operational environment and to express their opinions, and

- be able to provide advice and instructions in everyday situations.

#### *Content*

- Pronunciation
- Basic grammar
- Basic vocabulary (incl. numbers, days of the week, months, time)
- Telling about oneself
- Shopping
- Ordering food in a restaurant
- Giving directions

#### *Literature / Study Material*

Kautto–Laine–Lehmussaari: Entre Amigos

#### *Learning Methods*

- Classroom instruction
- Oral and written exercises
- Essay writing

#### *Assessment*

- Participation in classroom instruction
- Completion of written and oral exercises
- Written examination

Students must successfully complete all parts of the course to receive a grade.

#### *Languages of Instruction*

Finnish, Spanish and English

## **Spanish 2, 3 op KD07CYES111 (study unit)**

#### *Lecturers*

Ilpo Kempas, PhD

#### *Objectives*

Students will reinforce their knowledge of the Spanish language. They will understand and be able to use more key vocabulary and structures in speech and in writing. Having completed the course, students will

- be able to discuss issues related to travel,
- be able to tell about their country and hometown in the target language,
- understand the use of the simple perfect, and
- be able to discuss past events.

#### *Content*

- Basic grammar
- Shopping
- Travel
- Telling about one's hometown

#### *Literature / Study Material*

Kautto–Laine–Lehmussaari: Entre Amigos

#### *Learning Methods*

- Classroom instruction
- Oral and written exercises
- Essay writing

#### *Assessment*

- Participation in classroom instruction
- Completion of written and oral exercises
- Written examination

All parts of the course must be completed to receive a final grade.

*Prerequisites*

Spanish I or the equivalent level

*Languages of Instruction*

Finnish, Spanish and English

*Further Information*

The course takes place on Tuesdays in the Business School at Koulukatu 41. It will continue in the fourth semester.

## **Spanish 3, 3 op KD07CYES112 (study unit)**

*Lecturers*

Ilpo Kempas, PhD

*Objectives*

Students will further enhance their knowledge of the foundations of Spanish. They will understand and be able to use and increased amount of vocabulary and structures in speech and in writing. Having completed the course, students will

- be able to discuss past events using the past tenses,
- be competent in coping with everyday communication in the target language,
- be able to describe their operational environment and express their opinions, and
- be able give advice and instructions in everyday situations.

*Content*

- More basic grammar
- Past tenses
- Description of an event
- Telling about Finland
- Telling about eating habits
- Travel

*Literature / Study Material*

Kautto–Laine–Lehmussaari: Entre Amigos

*Learning Methods*

- Classroom instruction
- Oral and written exercises
- Essay writing

*Assessment*

- Participation in classroom instruction
- Completion of written and oral exercises
- Written examination

All parts of the course must be successfully completed to receive a final grade.

*Prerequisites*

Spanish II or the equivalent level

*Languages of Instruction*

Finnish, Spanish and English

## **Spanish 4, 3 op KD07CYES120 (study unit)**

*Lecturers*

Ilpo Kempas, PhD

*Objectives*

Students will be competent in understanding texts related to business and commerce. They will also be introduced to the rest of the verb forms in Spanish. Upon completion of the course, students will

- be able to use the subjunctive, the conditional, and the future tenses,
- be able to read factual text with the help of tools, and
- be familiar with the key vocabulary related to business.

### *Content*

- Verb study period
- Factual texts in Spanish

### *Literature / Study Material*

- Kautto, Laine ja Lehmussaari: Entre Amigos
- Ohter material distributed by the teacher

### *Learning Methods*

- Classroom instruction
- Written exercises
- Essay writing
- Translation exercises
- Reading comprehension exercises

### *Assessment*

- Participation in classroom instruction
- Completion of written exercises
- Two written examinations

All parts must be successfully completed to receive credit for the course.

### *Prerequisites*

Spanish III or equivalent level of knowledge

### *Languages of Instruction*

Spanish and Finnish

## **Spanish 5, 3 op KD07CYES121 (study unit)**

### *Lecturers*

Ilpo Kempas, PhD

### *Objectives*

Student will become familiar with business communication in Spanish and improve their knowledge of business-related language. Having completed the course, students will

- be familiar with the vocabulary used in business and trade,
- be able to read factual text with the help of tools,
- be able to communicate by telephone, and
- be familiar with work-related written communication.

### *Content*

- Business correspondence
- E-mail communication
- Telephone communication

### *Literature / Study Material*

Material distributed by the teacher.

### *Learning Methods*

- Classroom instruction
- Oral and written exercises
- Reading comprehension exercises

### *Assessment*

- Participation in classroom instruction
- Completion of written and oral exercises
- Written examination

All parts must be successfully completed to receive credit for the course.

*Languages of Instruction*  
Spanish and Finnish

## **Basics in French, 3 op KD07DWRA010 (study unit)**

*Lecturers*  
Ilpo Kempas, PhD

### *Objectives*

Students will learn the basics of the French language. They will understand and be able to use essential vocabulary and structures of the language both in speech and in writing. After completing this course, the students will be competent in

- telling about their personal data,
- managing everyday situations using the target language,
- describing their environment and expressing their opinions, and
- giving advice and instructions related to everyday life.

### *Content*

- Telling about oneself
- Shopping and ordering food in a restaurant
- Telling about one's hometown
- Giving advice and instructions

*Literature / Study Material*  
Material handed out by the teacher.

### *Learning Methods*

- Lessons contact
- Written and oral assignments

### *Assessment*

- Active participation in class
- Completion of written and oral assignments
- Two (2) examinations both of which must be successfully completed

*Languages of Instruction*  
French and Finnish

### *Further Information*

In the event non-Finns take part in the course, teaching will be given in two languages or in English as agreed upon with the students. Teaching takes place on Thursdays starting 2:00 pm during semesters 3 and 4. Location: SeAMK Business School

## **French 2, continuation course, 3 op KD07DWRA020 (study unit)**

*Lecturers*  
Ilpo Kempas, PhD

### *Objectives*

Students will further their knowledge of the basic structures of the French language. They will learn more vocabulary and be competent in using it when speaking and writing. After completing this course, the students will be competent in

- telling about past events,
- telling about their hobbies,
- discussing issues related to health, and
- telling about their home country and place of residence.

### *Content*

- Telling about one's hobbies
- Various situations of communication
- Telling about journeys

### *Literature / Study Material*

Material handed out by the teacher.

### *Learning Methods*

- Lessons
- Written and oral assignments

### *Assessment*

- Active participation in class
- Completions of written and oral assignments
- Written examination

### *Prerequisites*

French I or similar beginner's course

### *Languages of Instruction*

French and Finnish

## **Russian 1, elementary course, 3 op KD07CYVE010 (study unit)**

### *Lecturers*

Tanja Kuivinen, MA

### *Objectives*

Students will acquire a foundation for using the Russian language. After completing this course, the students will be competent in managing everyday practical situations of communication.

### *Content*

- Basic grammar
- Telling about oneself
- Language skill
- Situations in cafés and restaurants
- Asking and telling the way
- Making appointments
- Knowledge of Russia and the cultures there

### *Literature / Study Material*

Nikiforow –Keränen –Alikov: Saljut 1. Venäjän alkeiskurssi

### *Learning Methods*

- Lessons
- Written and oral assignments

### *Assessment*

- Active participation in class
- Completion of written assignments
- Two (2) examinations, both of which must be passed

### *Languages of Instruction*

Russian and Finnish

### *Further Information*

Location: SeAMK Business School

## **Russian 2, continuation course, 3 op KD07CYVE100 (study unit)**

### *Lecturers*

Tanja Kuivinen, MA

### *Objectives*

Students will further develop their basic language proficiency in Russian. After completing this course, the students will be competent in handling various everyday situations of communication and be able to take part in simple, business-related conversations.

### *Content*

- Increasing the basic grammar/vocabulary skills
- Contact information, jobs and duties
- Hobbies, habits
- Age, family, education
- Telephone language
- Basic shopping items
- Acquiring tickets to the theatre, etc.
- Time, days, opening hours
- Visits

### *Literature / Study Material*

Nikiforow –Keränen– Alikov: Saljut 1. Venäjän alkeiskurssi 1

### *Learning Methods*

- Lessons
- Written and oral assignments

### *Assessment*

- Active participation in class
- Completion of written assignments
- Two (2) examinations, both of which must be passed

### *Prerequisites*

Russian I, beginner's course or similar skills

### *Languages of Instruction*

Russian and Finnish

### *Further Information*

Location: SeAMK Business School

## **Russian 3, 3 op KD07CYVE111 (study unit)**

### *Lecturers*

Tanja Kuivinen, MA

### *Objectives*

Students will acquire further knowledge of basic vocabulary grammatical structures for practical situations. Upon completion of the course, students will be competent in handling normal situations of writing and speaking. They will also understand clear speech and simple texts.

### *Content*

Students will continue learning about the Russian culture and society, as well as the following topics:

- Shopping
- Communicating at fairs and exhibitions
- Sightseeing
- Talking about interests, the weather
- Living and the environment
- Birthdays
- At the chemist's and seeing a doctor

- Singular dative of nouns
- Singular prepositional of adjectives
- Genitive
- Comparison of adjectives and adverbs
- Short adjectives
- Conditionals
- Demonstrative pronouns
- Relative pronouns
- Conjunctions
- Particles

#### *Literature / Study Material*

- Saljut 1! (Chapters 10–12)
- Saljut 2! (Chapters 1–3)
- Other material handed out by the teacher

#### *Learning Methods*

- Oral practice such as dialogues, pair and group work
- Written assignments

#### *Assessment*

- Active participation in classroom study
- Active demonstration of oral skills
- Completion of oral and written assignments
- Exams

All parts must be successfully completed to receive a grade for the course.

#### *Prerequisites*

Russian 2

#### *Languages of Instruction*

Finnish and Russian

### **FREE-CHOICE STUDIES, 12 op VAPVAL (study entity)**

Students may select courses from the the elective courses offered by the Business School or other faculties at the Seinäjoki University of Applied Sciences. Information concerning available courses at <http://ops.seamk.fi>

### **Thesis, 15 op KD07FYOT200 (study unit)**

#### *Objectives*

The bachelor's thesis can be done individually or as a part of a larger research or development project. The aim of the thesis is to determine how well students apply the theoretical knowledge they have acquired during their studies. During the thesis process, students practise problem-solving skills, acquire knowledge of project work, utilize scientific thinking skills, carry out independent information retrieval, and report research results. Student must present the results of their research logically using correct language and professional terminology. The thesis process also allows students to be creative, to experiment and use innovative applications.

#### *Content*

Students are responsible for the choice of topic, which they often find during their practical training. Students discuss their choice of topic with their advisor for approval. Students must keep in touch with their advisor throughout the thesis process. Students present their research plan (and the completed work) at a seminar. The thesis is accompanied by a Maturity Test, in which students must demonstrate their command of the subject and their ability to use language clearly and consistently.

#### *Literature / Study Material*

Material associated with research and the students' own topic. The choice of material must be discussed with the supervisor.

#### *Assessment*

According to the criteria set for the assessment of theses at the Seinäjoki University of Applied Sciences



### *Further Information*

Research work and thesis process

## **Maturity examination KD07FY0T100 (study unit)**

### *Lecturers*

Thesis advisor

### *Objectives*

The law pertaining to studies at the university of applied sciences level (352/2003) states that students are required to sit a Maturity Test to receive their university of applied sciences degree. Students write about a topic related to the thesis, which indicates their knowledge of the topic and of Finnish or Swedish language. If a student has received their education in a language other than Finnish or Swedish, the head of the degree program may allow the student to take the Maturity Test in another language.

### *Content*

Students must demonstrate that they master the content of their thesis and produce a clear and consistent written presentation.

### *Assessment*

The content and use of language in the Maturity Test is evaluated on a pass/fail basis. Assessment includes both the content of the text and how well the student uses grammatical structures. The thesis advisor evaluates the Maturity Test.

### *Prerequisites*

Students may register for the Maturity Test after they have submitted their thesis for final assessment.

### *Further Information*

More information concerning registration for the Maturity Test and writing instructions is available in the instructions for writing a Maturity Test and thesis.

## **Practical training, 30 op KD07HYTH120 (study unit)**

### *Lecturers*

Practical training supervisor and head of degree program

### *Objectives*

Students will become familiar with the tasks, practices and culture(s) of their professional field in the working world, and learn to apply what they have learned to situations in practice. They will obtain an overall picture of the activities of the organisation or business where they are placed. The practical training provides students with the opportunity to obtain ideas and/or topics for their final thesis.

### *Content*

- Applying for a practical training placement
- Practical training
- Reporting (before, during, and after the training period)

### *Learning Methods*

Learning-by-doing and compiling reports

### *Assessment*

Pass/fail

# Degree Programme in Conservation (In Finnish)

## SPECIALISATIONS

Building Conservation

## QUALIFICATION AWARDED

Bachelor of Culture and Arts

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

A variety of teaching methods are used in the programme to support students' professional development, readiness for the working world and professional expertise. Students work in small groups, listen to lectures by experts, work in the laboratory, visit conservation sites, do assignments, work in projects and obtain practical experience on various conservation sites.

Students' active role in their education plays an important part in teaching. The working world and expertise demand that employees have advanced skills in information acquisition and processing and problem-solving, the ability to collaborate with others and to always be open to new learning situations, as well as the ability to combine various types of information and various disciplines with practical work. This means that students must understand what they are taught and that they must independently develop their knowledge and skills. For this reason, teaching in the conservation programme emphasises the constructivist theory of learning.

The Degree Programme in Conservation is divided into Basic Studies and Professional Studies, which students supplement with elective studies, practical training and a final thesis.

The Basic Studies provide students with support for working in the profession, and emphasis is placed on the basic skills, such as information technology, languages and communication that students need in their education and later in the profession.

The Professional Studies involve study in modules where students obtain comprehensive understanding of the broad scope of work carried out in building conservation. Students learn about the conservation of wooden structures and surface treatments. However, the aim is also to familiarise students more extensively with conservation as a profession and ideology as well as with traditional construction.

Students do their practical training and final thesis toward the end of their studies. The purpose is to provide students with the opportunity to improve their facilities to work independently and responsibly in the working world. Students also have the opportunity to participate in international co-operation in a number of areas.

Students in the Degree Programme in Conservation study full time, and full participation in the given assignments is compulsory. Required course attendance is between 100 – 80 % depending on the course in question. Attending the lessons less than the required amount may result in a lower grade for the course. The required amount of attendance is notified to the students at the beginning of each course. Teachers may assign extra work to make up for the excess absences.

Students are required to submit given assignments by the due date, after which they are graded on a scale of 1 to 5. One grade (–1) will be subtracted from the grade of an assignment/product/production/project if it is submitted late. If they wish, teachers may set two due dates for late assignments. Submitting an assignment by the first due date for late assignments results in a reduction of the grade for the assignment by one grade (–1), and submitting an assignment by the second late due date reduces the grade by two grades (–2). Students who fail to return assignments must take the course again the following academic year. The grades are entered into Winha within one month after students have been notified of their grade. Assignments submitted late are graded twice a year: in December and May.

For the most part, teaching in the programme follows the curriculum. However, some courses may be moved to a different time or combined with other courses as needed. The study material for the course primarily consists of lecture notes. Emphasis in the programme is placed on independent study and therefore students are responsible for enhancing their field-related knowledge and skills outside the university as well.

## PROFILE OF THE PROGRAMME

Conservation is the preservation of culturally and historically valuable heritage. The purpose of the building conservation programme is to produce professionals who are specialised in the preservation of culturally and historically valuable buildings, and who possess a comprehensive understanding of the care of cultural heritage.

A degree in conservation provides students with the readiness they need to handle diverse building conservation duties as employees of public organisations and companies or as private entrepreneurs. Conservators may function as consultants, designers/planners or as experts in projects for preserving old buildings or built environments, or they may themselves carry out practical conservation.

The purpose of the programme is to introduce students to conservation as a profession and ideology, traditional construction, materials typically preserved and materials to use to preserve artefacts, as well as to conservation techniques.

Emphasis in the programme is placed on wooden buildings and the conservation of their surfaces. Graduates from the programme will be competent in using wood in traditional construction. They will also be familiar with wood as a material and the methods for preserving it. They will have command of the surface treatment methods and materials for wooden buildings, and they will be aware of the opportunities and challenges in the preservation of them.

## KEY LEARNING OUTCOMES

### *Conservation competence*

A Bachelor of Culture and Arts

- \* manages the systematic, critical and methodological solutions to problems in conservation work and processes, and they are competent in developing new approaches.
- \* is able to analyse and evaluate new approaches holistically and to plan, coordinate and implement conservation processes.

### *Competence in materials analysis*

A Bachelor of Culture and Arts

- \* is competent in planning, co-ordinating and executing materials analyses. A conservator is able either to make him/herself or to contract out and commission material analyses and to evaluate and interpret their results.

### *Contextualisation competence*

A Bachelor of Culture and Arts

- \* can identify and date individual artefacts, built environments, collections, materials and techniques and place them in a historical context.

### *Documentation Competence*

A Bachelor of Culture and Arts

- \* knows and is able to apply different documentation methods in order to report and document different stages of a conservation process.

### *Competence relating to collections*

A Bachelor of Culture and Arts

- \* has command of the management of collections as well as the theories, methods and principles for creating and developing them.
- \* is familiar with the management, organisation and processes pertaining to collections as well as museum technology.

## ACCESS TO FURTHER STUDIES

Students may apply to complete their master's degree in conservation (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at KONS 2009, Building Conservation (1.9.2009), 240 cr

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

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ECTS departmental coordinator / International coordinator: Ms Eija Pennanen, tel. +358 20 124 5924, GSM: 040 830 4272, e-mail: eija.pennanen@seamk.fi

Student counsellor: Ms Tuija Huusko, tel. +358 20 124 5934, GSM: 040 830 4227, e-mail: tuija.huusko@seamk.fi

## Degree Programme in Conservation (In Finnish) (1.9.2009)

### KONS 2009 (Building Conservation)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KH12AK10	<b>BASIC STUDIES</b>					<b>31</b>
KH12AK10043	Information technology and information seeking	x				4
KH12AK10070	English 1	x				3
KH12AK10080	English 2		x			3
KH12AK10100	Swedish		x			3
KH12AK10053	Communication skills	x				4
KH12AK10052	Seminar work		x			2
KH12AY1003	Entrepreneurship		x			3
KH12AY1002	Marketing			x		3
KH12AY1001	Cost planning			x		3
KH12AK10090	Project studies			x		3
KH12AOP	<b>PROFESSIONAL STUDIES</b>					<b>154</b>
KH12BK01	<b>Technical and Scientific Subjects Module</b>					<b>35</b>
KH12AK10081	Physics	x				3
KH12BK60011	Chemistry 1	x				3
KH12BK60021	Chemistry 2		x			2
KH12BK60031	Chemistry 3			x		3
KH12BK40012	Basics of building technology 1	x				5
KH12BK40021	Basics of building technology 2		x			3
KH12BK40031	Construction physics		x			3
KH12BK40061	Concrete and metal structures			x		3
KH12BK60051	Research methods 1	x				2
KH12BK60061	Research methods 2			x		3
KH12BK60071	Microbiology			x		3
KH12BK60081	Klimatology	x				2
KH12BK02	<b>Conservation of Timber Structures Module</b>					<b>44</b>
KH12BK60012	Materials: Timber	x				5
KH12BK40041	Timber structures 1	x				5
KH12BK40050	Timber structures 2		x			4
KH12BK50042	Conservation of timber structures 1	x				10
KH12BK50051	Conservation of timber structures 2		x			10
KH12BK50063	Conservation of timber structures 3			x		10
KH12BK03	<b>Conservation of Masonry Structures Module</b>					<b>20</b>
KH12BK40080	Masonry structures 1		x			3
KH12BK40051	Masonry structures 2			x		3
KH12BK60033	Materials of masonry constructions		x			5
KH12BK50081	Conservation of masonry structures 1		x			3

KH12BK50082	Conservation of stone			x		3
KH12BK50092	Conservation of masonry structures 2			x		3
KH12BK04	<b>Conservation of Materials Complementing Finished Frame Module</b>					<b>30</b>
KH12BK60024	Surface treatment materials and techniques 1	x				7
KH12BK60023	Surface treatment materials and techniques 2		x			5
KH12BK50061	Conservation of treated surfaces 1		x			5
KH12BK50072	Conservation of treated surfaces 2			x		10
KH12BK60042	Materials complementing the frame			x		3
KH12BK06	<b>History and Museum Subjects Module</b>					<b>25</b>
KH12BK10091	History of built environment 1	x				4
KH12BK10102	History of built environment 2		x			4
KH12BK50031	Documentation 1	x				4
KH12BK50043	Documentation 2		x			4
KH12BK10011	Ethics of profession			x		4
KH12BK10014	Museology and Preservation of Buildings			x		3
KH12BK10013	Seminars and site visits			x		2
KH12VVO	<b>FREE CHOICE STUDIES</b>					<b>10</b>
KH12BV10007	Machines and safety	x				2
KH12BV10008	Preparation of a profile handplane	x				2
KH12BV10003	Gilding				x	2
KH12BV10004	Decorative painting				x	2
KH12BV10005	Plaster work			x		2
KH12BV10011	Wallpaper preparation			x		4
KH12BV10010	Bricklaying of oven		x			3
KH12FK80	<b>THESIS</b>					<b>15</b>
KH12EH	<b>PRACTICAL TRAINING</b>					<b>30</b>

## Study Descriptions

### Information technology and information seeking, 4 op KH12AK10043 (study unit)

#### Objectives

Students will be familiar with information technology and the computer environment at the university of applied sciences. They will be competent in effectively utilising word processing, spreadsheet and graphics programmes, among others, as well as the tools and instruments needed in using computers. Students will be familiar with the structure, features, concepts and file types of digital images. They will know how to edit images and make basic and colour adjustments. They will have command of basic skills in field-related information acquisition channels and possess the readiness needed to independently utilise sources of information.

#### Content

Information technology: Students are introduced to the operational principles of information technology and the computer environment at the university of applied sciences. The main topics discussed in the course include:

- Using computers and peripheral devices
- Using the Internet, Seinäjoki UAS Intranet, e-mail and WinhaWille
- Moodle learning environment
- Word processing, spreadsheets and graphics programmes
- Structure, features, editing and saving of a digital image
- Digitalising, editing, using and archiving images

#### Information acquisition:

- Online library services, looking for information, databases, searching for information on the Internet, field-related producers of information, assessing information
- Using archives, taking notes on gathered information and editing it for archive research reports pertaining to the object being conserved and for purposes of the historical documentation of an object/building.

#### *Literature / Study Material*

Material provided by the lecturer.

#### *Learning Methods*

- Lectures
- Computer work
- Assignments
- Independent study

#### *Assessment*

- Active participation
- Approved assignments and exam

### **English 1, 3 op KH12AK10070 (study unit)**

#### *Objectives*

Students will have command of the written and spoken English language skills needed in the field of conservation. They will be able to describe the type of education and work experience they have, be familiar with the job hunting process, and know how to write a job application and CV in English. Students will be introduced to written communication and business correspondence, and they will become familiar with field-related texts with which they will learn field-related terminology to be used when speaking and writing.

#### *Content*

- Conservation
- Restoration
- Vocabulary for the field of construction
- Reading, writing and speaking in English using field-related terminology
- Oral presentation
- Compiling a job application

#### *Literature / Study Material*

Material provided by the lecturer.

#### *Learning Methods*

- Lectures
- Presentations
- Verbal exercises
- Portfolio

#### *Assessment*

Active participation during lessons and approved exercises.

#### *Languages of Instruction*

Finnish and English

### **English 2, 3 op KH12AK10080 (study unit)**

#### *Objectives*

Students will have deeper command of the written and spoken English language skills needed in the field of conservation. They will strengthen their written and oral skills and maintain and improve their existing language skills. They will learn to write a summary and learn about the procedures and vocabulary specific to meetings. Students will also read demanding texts related to the field of conservation, understand the vocabulary in such texts and be able to use the vocabulary to summarize the texts either orally or in writing. They will also use this advanced vocabulary in spoken and written English.

### *Content*

- Conservation
- Restoration
- Vocabulary related to the field of conservation
- Reading, writing and speaking using field-related terminology
- Oral presentation
- Procedures of a meeting

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

- Lectures
- Presentations,
- Verbal exercises

### *Assessment*

Active participation in the lessons and portfolio.

### *Prerequisites*

English I

### *Languages of Instruction*

Finnish and English

## **Swedish, 3 op KH12AK10100 (study unit)**

### *Objectives*

Students will be competent in spoken and written Swedish necessary in conservation.

### *Content*

- General, field-related texts
- Vocabulary associated with construction and conservation
- Reading, writing and oral exercises

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

- Lectures
- Translations
- Presentations
- Listening comprehension
- Conversation

### *Assessment*

Approved exercises and examination, as well as active participation in the lessons

## **Communication skills, 4 op KH12AK10053 (study unit)**

### *Objectives*

Students will acquire skills in writing academic texts and have command of the structure and layout of reports. They will also have command of the verbal and written communication needed in the field of conservation.

### *Literature / Study Material*

- Instructions for Writing an Academic Text. 2008. Seinäjoki University of Applied Sciences
- Material provided by the lecturer

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Active participation in lessons
- Verbal communication
- Approved written assignments and exam

## **Seminar work, 2 op KH12AK10052 (study unit)**

### *Lecturers*

Conservator and Civil Engineer Outi Orhanen

### *Objectives*

Students will be capable of producing formal academic texts pertaining to building conservation.

### *Content*

- Developing a scientific way of thinking and approaches to problem-solving
- Significance of critically evaluating sources of information for scientific texts

### *Literature / Study Material*

- Material provided by the lecturer
- Lecture notes
- Instructions for Writing an Academic Text. 2008. Seinäjoki University of Applied Sciences
- Karjalainen S., Launis V., Pietarinen J. & Pelkonen R.(eds.). 2002. Tutkijan eettiset valinnat. Helsinki: Gaudeamus

### *Learning Methods*

Assignment

### *Assessment*

- Active participation in the lessons
- Approved written seminar work
- Oral presentation

## **Entrepreneurship, 3 op KH12AY1003 (study unit)**

### *Objectives*

Students will have command of the modes of business operations related to their professional field.

### *Content*

- Familiarisation with the business world
- Establishing a business and the operations therein
- Concepts associated with economy and financial management

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

Lectures and assignments

### *Assessment*

Active participation in the lessons, approved assignments and examination

## **Marketing, 3 op KH12AY1002 (study unit)**

### *Objectives*

Students will have command of marketing and its significance in their professional field.

### *Content*



- Customer-oriented marketing: methods and strategies
- Competitive tools
- Profitability of marketing

#### *Literature / Study Material*

- Lecturer's material
- Lecture notes

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

Active participation in the lessons, approved assignments and examination

### **Cost planning, 3 op KH12AY1001 (study unit)**

#### *Lecturers*

Ilkka Loukola, MSc (Eng.)

#### *Objectives*

Students will have command of the methods for estimating costs and understand the significance of it to their professional field.

#### *Content*

- Cost estimation in conservation work
- Quantity surveying
- Pricing
- Operating costs
- Tender calculations
- Materials procurement
- Schedules
- General conditions for building contracts.

#### *Literature / Study Material*

- YSE1998
- Lecturer's material

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

Active participation in the lessons, approved assignments and examination

### **Project studies, 3 op KH12AK10090 (study unit)**

#### *Objectives*

During their Project Studies, students advance their knowledge of conservation processes. Students' will develop their skills in working independently and they learn to outline, plan, schedule and implement field-related projects.

#### *Content*

Independent project work and reporting

#### *Literature / Study Material*

- Instructions for Writing Academic Texts. 2008. Seinäjoki University of Applied Sciences
- Materials from the course Wooden Structures and Conservation
- Materials from the course Surface Treatments and Conservation
- Materials from the course Documentation

#### *Learning Methods*

- Independent work
- Pair and group work

- Lectures

*Assessment*

Approved oral and written report about the project work.

**PROFESSIONAL STUDIES, 154 op  
KH12AOP (study entity)**

Upon completion of their Professional Studies, students will be familiar with traditional methods of construction and the preservation of wooden buildings and their surfaces.

**Physics, 3 op  
KH12AK10081 (study unit)**

*Lecturers*

Heikki Kokkonen, LA

*Objectives*

Students will have command of the calculations associated with physics and be competent in solving equations accurately. They will also be knowledgeable of the terminology associated with physics.

*Content*

- Magnitude and unit systems of measurement
- Mechanics
- Energy
- Light and color
- Nuclear physics
- Thermology

*Literature / Study Material*

- Lecturer's material
- Lecture notes

*Learning Methods*

- Lectures
- Group work
- Calculations
- Independent study

*Assessment*

Approved calculations and examination

**Chemistry 1, 3 op  
KH12BK60011 (study unit)**

*Objectives*

Students will have command of the basic concepts of chemistry with special emphasis on the chemistry associated with cleaning.

*Content*

- Basic terminology associated with inorganic chemistry
- Dirt and cleaning in chemistry
- Material categories of organic chemistry
- Laboratory work: cleaning tests

*Literature / Study Material*

- Ashley–Smith, J. Science for Conservators Volume 1. An Introduction to Materials. Conservation Science Teaching Series. The Conservation Unit. London.
- Ashley–Smith, J. Science for Conservators Volume 2. Cleaning. Conservation Science Teaching Series. The Conservation Unit. London
- Torraca, G. Solubility and Solvents for Conservation Problems. Iccrom. Rome.
- Horie, C.V. 1987 Materials for Conservation: organic consolidants, adhesives and coatings. Butterworth–Heinemann Ltd. Oxford.

- Lecturer's material

#### *Learning Methods*

Lectures, exercises and laboratory work

#### *Assessment*

Approved exercises and examination, and laboratory work

#### *Languages of Instruction*

Finnish

### **Chemistry 2, 2 op KH12BK60021 (study unit)**

#### *Lecturers*

Art Conservator Nina Jolkkonen–Porander

#### *Objectives*

Students will understand the basic phenomena involved in chemistry and apply them to conservation.

#### *Content*

- Chemistry of colors, chemical and physical properties of pigments
- Practical pigment analysis
- Old, historic pigment as demonstration material

#### *Literature / Study Material*

- Ulla Knuutinen: Pigmentit
- Seppo Rihlana: Värioppi
- Veikko Kiljunen: Taidemaalarin materiaalioppi
- Pappismunkki Arseni: Ikonikirja: Historiaa, teologiaa ja tekniikkaa
- Lecturer's material and lecture notes

#### *Learning Methods*

Lectures, laboratory work and assignments

#### *Assessment*

Active participation in the lessons, laboratory work, assignments and exam

#### *Prerequisites*

Chemistry I

#### *Languages of Instruction*

Finnish

### **Chemistry 3, 3 op KH12BK60031 (study unit)**

#### *Lecturers*

Art Conservator Nina Jolkkonen–Porander

#### *Objectives*

Students will understand the basic phenomena involved in chemistry and apply them to conservation.

#### *Content*

The course involves the chemistry and analysis of natural glues, varnishes and binding agents for paints used in conservation.

#### *Literature / Study Material*

- Maschalein–Kleiner: Vanhat sideaineet, lakat ja kiinnitteet. Mills.
- Horie C.V. 1987 Materials for Conservation: organic consolidants, adhesives and coatings. Butterworth–Heinemann Ltd: Oxford.
- Pentti Pietarila: Rakennusten värit ja koristetyylit
- Lecturer's material and lecture notes

### *Learning Methods*

Lectures, laboratory work and assignments

### *Assessment*

Active participation in the lessons, laboratory work, assignments and exam

### *Prerequisites*

Chemistry II

### *Languages of Instruction*

Finnish

## **Basics of building technology 1, 5 op KH12BK40012 (study unit)**

### *Lecturers*

- Conservator Outi Orhanen, MCE
- Marita Viljanmaa, MSc (Eng.)

### *Objectives*

Students will be familiar with the organisation of the Finnish building authorities and the legislation pertaining to the field of construction. Additionally, students will be familiar with the various permits needed in construction and be competent in identifying the various structures, techniques and materials in buildings. They will understand construction drawings and have command of the ArchiCAD programme used in making construction drawings.

### *Content*

- Organisation of the Finnish building authorities
- Legislation associated with the field of construction
- Applying for permits, parties and duties of each party in a construction project
- Creating a comprehensive picture of a building as a technical and material entity
- Technical functions of a building
- Names and functions of building elements
- Drawings related to construction and drawing them by hand
- Using the ArchiCAD programme to make construction drawings, how the programme works and computerized modelling

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

- Lectures
- Computer work
- Assignments

### *Assessment*

- Active participation
- Exam
- Approved assignments

## **Basics of building technology 2, 3 op KH12BK40021 (study unit)**

### *Lecturers*

Conservator Outi Orhanen, MCE

### *Objectives*

Students will be familiar with the structures, techniques and materials in modern buildings.

### *Content*

- Constructing foundations: soil types and drainage
- Foundation types and damage
- Base floor and load-bearing structures
- HVAC technology

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Assignments

### *Assessment*

- Active participation
- Assignments
- Exam

### *Languages of Instruction*

Finnish

## **Construction physics, 3 op KH12BK40031 (study unit)**

### *Lecturers*

Marita Viljanmaa, MSc (Eng.)

### *Objectives*

Students will be familiar with the physical phenomena and stress associated with buildings.

### *Content*

- Constructional–physical functions of structures and their significance, as well as the regulations and instructions associated with them
- Air flow and pressure, transfer of heat and moisture
- Drying building elements and permeability of gases
- Structural fire protection
- Tools for measuring moisture

### *Literature / Study Material*

- Lecturer's material

### *Learning Methods*

- Lectures
- Assignments

### *Assessment*

- Approved assignments
- Exam

### *Languages of Instruction*

Finnish

## **Concrete and metal structures, 3 op KH12BK40061 (study unit)**

### *Lecturers*

Conservator Outi Orhanen, MCE

### *Objectives*

Students will be familiar with the structures made from concrete and metals and their properties.

### *Content*

- History, manufacturing methods and use of concrete structures
- Metals and metal structures
- Manufacturing methods and ways to connect metal structures

### *Literature / Study Material*

- Lecturer's material
- Museum of Finnish Architecture: Rautaiset rakenteet –rauta ja teräs suomalaisessa arkkitehtuurissa
- Lecture notes

### *Learning Methods*

Lectures, field trips and assignments

### *Assessment*

Active participation in lectures, assignments and examination

### *Languages of Instruction*

Finnish

## **Research methods 1, 2 op KH12BK60051 (study unit)**

### *Lecturers*

- Högne Junger, PhD
- Conservator Anni Lehtimäki
- Conservator Outi Orhanen, MCE

### *Objectives*

Students will be familiar with and know how to apply various research and dating methods in the field of conservation.

### *Content*

Methods of dating and studying materials:

- Dendrochronology
- Radio carbon dating
- Anatomy of wood

### *Literature / Study Material*

- Fagerstedt K. & Saranpää P. & Timonen T. 2004. Mikä puu –mistä puusta. 2nd edition. University of Helsinki Press: Helsinki
- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Assignments

### *Assessment*

- Active participation,
- Assignments and approved reports on assignments

### *Languages of Instruction*

Finnish

## **Research methods 2, 3 op KH12BK60061 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will be familiar with and know how to use various research methods in the field of conservation.

### *Content*

- Methods for studying and dating materials, structures and conditions
- Preparation of samples and microscopic examination
- Use of research equipment and practical applications

- Ultraviolet and infrared depiction as research tools

#### *Literature / Study Material*

- Lecturer's material
- Manuals for equipment and computer programs

#### *Learning Methods*

Lectures, description exercises and laboratory work

#### *Assessment*

Active participation, exam/report

#### *Languages of Instruction*

Finnish

### **Microbiology, 3 op KH12BK60071 (study unit)**

#### *Lecturers*

Marjatta Salminen, MSc (Eng.)

#### *Objectives*

Students will be able to identify various bacteria, moulds and fungi and know their conditions for growth.

#### *Content*

- Principles of microbiology
- Categorising microbes, conditions for growth and mechanisms of biodegrading in construction materials
- Microbe cultivation
- Disinfection and other preventive methods

#### *Literature / Study Material*

- Allsopp–Seal: An Introduction to Biodeterioration
- Luotonen–Viitanen: Rakennusten mikrobi- ja hyönteisongelmat
- Salkinoja–Salonen: Yleinen mikrobiologia

#### *Learning Methods*

Lectures, written assignments and laboratory work

#### *Assessment*

Approved assignments and exam

#### *Languages of Instruction*

Finnish

### **Klimatology, 2 op KH12BK60081 (study unit)**

#### *Lecturers*

Hannu Pyy, MA

#### *Objectives*

Students will be familiar with the conditions of and impacts on the environment and know how to react to them when necessary.

#### *Content*

- Climate and weather
- Climate change and air pollution and their impact on various materials
- Prevention of damage caused by air pollution

#### *Literature / Study Material*

Lecturer's material

#### *Learning Methods*

Lectures, exercises and field trips

### *Assessment*

Participation in the lectures, practical assignments and field trips, and an approved exam

### *Languages of Instruction*

Finnish

## **Conservation of Timber Structures Module, 44 op KH12BK02 (study entity)**

Objectives: Students will gain a comprehensive understanding of historical wooden structures and materials used in them as well as of the ways in which they are preserved.

## **Materials: Timber, 5 op KH12BK60012 (study unit)**

### *Lecturers*

Janne Jokelainen

### *Objectives*

Students will be familiar with wood as a material and how to use it, as well as the processes of deterioration and preservation of wood.

### *Content*

- Domestic and foreign species of wood used in buildings and fixed interiors
- Macro-structures of wood
- Identifying species of wood
- Growth, use and properties of wood
- Deterioration processes of wood (wood pests, types of decay)

### *Literature / Study Material*

- Lecturer's material
- Ilvessalo–Pfaffli: Puun rakenne; publication 84 of the Dept. of Education, University of Helsinki
- Fagerstedt et al. Mikä puu –mistä puusta
- Itämies, Viro: Sisätilojen tuholaiset
- Metsälä: Puukirja
- Laho ja sen torjunta
- Lecture notes

### *Learning Methods*

- Lectures
- Personal lecture notes
- Practical assignments

### *Assessment*

- Active participation in the lectures (min. 80 % attendance)
- Approved exercises
- Exam

## **Timber structures 1, 5 op KH12BK40041 (study unit)**

### *Lecturers*

Janne Jokelainen

### *Objectives*

Students will have command of old, wooden structures and how they are made.

### *Content*

- Wooden structures in old buildings: roof structures, log structures and how they function
- Materials used for structures, joints, function and nomenclature

### *Literature / Study Material*



- Lecturer's material
- Kaila, Pietarila, Tomminen: Talo kautta aikojen, julkisivujen historia
- Kaila, Vihavainen, Ekbom: Rakennuskonservointi
- Härö, Kaila: Pohjalainen talo
- National Board of Antiquities repair indices 4, 5, 6 and 19.
- Lecture notes

#### *Learning Methods*

- Lectures
- Personal lecture notes
- Assignments

#### *Assessment*

- Active participation in the lectures (min. 80 % attendance)
- Approved assignments
- Examination

### **Timber structures 2, 4 op KH12BK40050 (study unit)**

#### *Lecturers*

Janne Jokelainen

#### *Objectives*

Students will be familiar with old, wooden structures and the ways they are made and preserved.

#### *Content*

- Wood protection and conservation methods
- Old, wooden structures of buildings, porches, base floor structures, intermediate floor structures, roofing structures
- Windows, doors, outdoor cladding, sanitary areas
- Materials used in structures, measurement of structural elements, joints, functions and nomenclature

#### *Literature / Study Material*

- Lecturer's material
- Kaila, Pietarila, Tomminen: Talo kautta aikojen, julkisivujen historia
- Kaila, Vihavainen, Ekbom: Rakennuskonservointi
- Härö, Kaila: Pohjalainen talo
- National Board of Antiquities repair indices 2, 3, 8–10, 16, 17 and 21
- Lecture notes

#### *Learning Methods*

- Lectures
- Personal lecture notes
- Assignments
- Practical assignments

#### *Assessment*

- Active participation in the lectures (min. 80 % attendance)
- Approved assignments
- Examination

### **Conservation of timber structures 1, 10 op KH12BK50042 (study unit)**

#### *Lecturers*

Janne Jokelainen

#### *Objectives*

Students will have command of the methods and techniques used in preserving buildings.

#### *Content*

- Techniques and methods for working with structures
- Documenting, surveying damage, and compiling a conservation plan for a conservation site
- Degrees of intervention in conserving a building
- Alternative preservation techniques
- Compiling a conservation report and treatment programme

#### *Literature / Study Material*

- Lecturer's material
- Kaila, Vihavainen, Ekbom: Rakennuskonservointi
- National Board of Antiquities repair indices
- Talo kautta aikojen, parts 1 and 2.
- B.M. Feilden: Building Conservation

#### *Learning Methods*

- Lectures
- Written assignments
- Laboratory work
- Practical work periods

Teaching primarily involves practical work at a conservation site.

#### *Assessment*

Active participation in practical work (min. 80 % attendance) and approved reports pertaining to them.

### **Conservation of timber structures 2, 10 op KH12BK50051 (study unit)**

#### *Lecturers*

Janne Jokelainen

#### *Objectives*

Students will be familiar with and have command of the various alternatives and techniques used for preserving buildings.

#### *Content*

- Various methods and techniques for conserving structures
- Documenting, surveying damage and compiling a conservation plan for a conservation site
- Degrees of intervention in building conservation
- Alternative preservation techniques
- Compiling a conservation report and treatment programme

#### *Literature / Study Material*

- Lecturer's material
- Old, field-related literature
- Kaila, Vihavainen, Ekbom: Rakennuskonservointi
- National Board of Antiquities repair indices
- Talo kautta aikojen, parts 1 and 2
- B.M. Feilden: Building Conservation

#### *Learning Methods*

- Lectures
- Written assignments
- Laboratory work
- Practical work periods

Teaching primarily involves practical work at a conservation site.

#### *Assessment*

- Active participation in assignments and practical work (min. 80 % attendance) + related reports
- Approved reports

*Prerequisites*

Conservation of Wooden Structures I

**Conservation of timber structures 3, 10 op  
KH12BK50063 (study unit)**

*Lecturers*

Janne Jokelainen

*Objectives*

Students will further their knowledge and skills pertaining to the alternatives and techniques for preserving buildings.

*Content*

- Various methods and techniques for conserving structures
- Documenting, surveying damage and compiling a conservation plan for a conservation site
- Degrees of intervention in building conservation
- Alternative preservation techniques
- Compiling a conservation report and treatment programme

*Literature / Study Material*

- Lecturer's material
- Old, field-related literature
- Kaila, Vihavainen, Ekbom: Rakennuskonservointi
- National Board of Antiquities repair indices
- Talo kautta aikojen, parts 1 and 2
- B.M. Feilden: Building Conservation

*Learning Methods*

- Lectures
- Written assignments
- Laboratory work
- Practical work periods

Teaching primarily involves practical work at a conservation site.

*Assessment*

- Active participation in assignments and practical work (min. 80 % attendance) + related reports
- Approved reports

*Prerequisites*

Conservation of Wooden Structures I and II

**Conservation of Masonry Structures Module, 20 op  
KH12BK03 (study entity)**

Objectives: Upon completion of the module, students will possess a comprehensive understanding of the materials and working techniques used in masonry structures. They will be familiar with the principles of preserving masonry and natural stone structures.

**Masonry structures 1, 3 op  
KH12BK40080 (study unit)**

*Lecturers*

Conservator Outi Orhanen, MCE

*Objectives*

Students will have command of the basic issues pertaining to natural stone and brick.

*Content*

- Regulations pertaining to masonry structures
- Modern structures made of natural stone and brick, how they are made and used
- Foundations, wall structures, vaults, fireplaces and chimneys

### *Literature / Study Material*

- National Building Code of Finland
- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Field trips
- Assignments

### *Assessment*

- Active participation
- Assignments
- Exam

### *Languages of Instruction*

Finnish

## **Masonry structures 2, 3 op KH12BK40051 (study unit)**

### *Lecturers*

Conservator Outi Orhanen, MCE

### *Objectives*

Students will be familiar with history of structures made of brick and stone materials and old structures and their development.

### *Content*

Masonry structures of natural stone and brick and their history

### *Literature / Study Material*

- Lecturer's own material
- Lecture notes

### *Learning Methods*

- Lectures
- Field trips
- Assignments

### *Assessment*

- Active participation
- Assignments
- Exam

### *Languages of Instruction*

Finnish

## **Materials of masonry constructions, 5 op KH12BK60033 (study unit)**

### *Lecturers*

Conservator Outi Orhanen, MCE

### *Objectives*

Students will be familiar with natural stone, brick and mortar as materials.

### *Content*

- Production and technical properties of natural stone, brick and mortar
- Types of damage to the above-mentioned materials

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Field trips
- Assignments

### *Assessment*

- Active participation
- Assignments
- Exam

## **Conservation of masonry structures 1, 3 op KH12BK50081 (study unit)**

### *Lecturers*

Kari Uotila, PhD

### *Objectives*

Students will be familiar with the ways in which stone and brick structures may become damaged and how these structures can be preserved.

### *Content*

- Damage to masonry structures
- Principles and methods for preserving stone and brick structures
- Conservation methods for natural stone and brick
- Preventive measures, reinforcing, supporting sand cleaning, etc. various masonry elements and structures
- Structures and surface treatments for masonry structures and structures made of other materials

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

Lectures, written and practical assignments

### *Assessment*

Active participation in lectures, assignments and examination

### *Languages of Instruction*

Finnish

## **Conservation of stone, 3 op KH12BK50082 (study unit)**

### *Lecturers*

Conservator Virve Suominen

### *Objectives*

Students will become familiar with the history of stone as a building material, its properties, structural solutions and conservation of natural stone.

### *Content*

- Chemical and physical properties of natural stone
- Stone as a building material, working with stone and decay of the material
- Physical properties of different types of natural stone
- Principles of stone preservation and restoration

### *Literature / Study Material*

- Lecturer's material and lecture notes
- Lahdensivu J. 2004. Luonnonkiviverhottujen maassiivitiiliseinien vaurioituminen ja korjausperiaatteet. Tampere: Tampere University of Technology, building construction technology, research report 127
- Nikula R. 2005. Wood, Stone and Steel. Keuruu. Otava

#### *Learning Methods*

Lectures, assignments and field trips

#### *Assessment*

Active participation, practical work and examination

#### *Languages of Instruction*

Finnish

### **Conservation of masonry structures 2, 3 op KH12BK50092 (study unit)**

#### *Objectives*

Students will be familiar with the types of damage that affect structures made of brick and natural stone, and they will have command of the conservation involved in preserving such structures.

#### *Content*

- Damages suffered by masonry structures
- Principles and methods of preserving stone and brick structures
- Preventive measures, reinforcing, supporting, cleaning, etc. masonry elements and structures
- Structures and surface treatments for masonry structures and structures made of other materials

#### *Literature / Study Material*

- Lecturer's material
- Lecture notes

#### *Learning Methods*

- Lectures
- Practical assignments

#### *Assessment*

- Active participation
- Assignments
- Exam

#### *Prerequisites*

Preserving Masonry Structures I

### **Conservation of Materials Complementing Finished Frame Module, 30 op KH12BK04 (study entity)**

Objectives: Upon completion of the module, students will be familiar with the properties of materials used in surface treatment and frames and the preservation techniques of those materials.

### **Surface treatment materials and techniques 1, 7 op KH12BK60024 (study unit)**

#### *Lecturers*

Conservator Liisukka Oksa

#### *Objectives*

Students will become familiar with traditional surface-treatment agents and techniques. They will understand the concept of compatibility among materials and how they behave in various structures. Students will also have knowledge of the history of the mentioned materials.

#### *Content*

- Traditional binding agents, paints and varnishes
- History of material, wallpapers and painting bases

- Priming
- Methods for painting and wallpapering

#### *Literature / Study Material*

- Lecturer's material
- Old, field-related literature

#### *Learning Methods*

- Lectures
- Practical assignments
- Laboratory work
- Portfolio

#### *Assessment*

- Assignments
- Portfolio
- Examination

#### *Languages of Instruction*

Finnish

### **Surface treatment materials and techniques 2, 5 op KH12BK60023 (study unit)**

#### *Lecturers*

Conservator Liisukka Oksa

#### *Objectives*

Students will become familiar with traditional surface-treatment agents and techniques. They will understand the concept of compatibility among materials and how they behave in various structures. Students will have command of various decoration methods and stencil-type painting. They will also be knowledgeable in the approaches conservators take to their work.

#### *Content*

- Traditional binding agents, varnishes and paints
- History of materials, wall-papers and painting bases
- Priming work
- Painting and wallpapering methods

#### *Literature / Study Material*

- Lecturer's material
- Old, field-related literature

#### *Learning Methods*

- Lectures
- Practical assignments
- Laboratory work
- Portfolio

#### *Assessment*

- Assignments
- Portfolio
- Examination

#### *Languages of Instruction*

Finnish

### **Conservation of treated surfaces 1, 5 op KH12BK50061 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will have command of various types of surface cleaning methods, reinforcements and colour fixation. They will be able to identify various materials and know how to take samples and analyse them.

### *Content*

- Conservation, restoration and cleaning techniques
- Aging of material

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Lectures, written and practical assignments

### *Assessment*

Assignments and examination

### *Languages of Instruction*

Finnish

## **Conservation of treated surfaces 2, 10 op KH12BK50072 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will have command of the various ways to clean, reinforce and fix colour on various surfaces. They will be familiar with various materials and be competent in taking samples and analysing them. Students will also have command of stretching and papering methods and how items made this way can be conserved.

### *Content*

- Stretching
- Conservation and restoration of surface and surface treatments
- Cleaning techniques and aging of material

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

- Lectures
- Written and practical work

### *Assessment*

- Assignments
- Examination

### *Languages of Instruction*

Finnish

## **Materials complementing the frame, 3 op KH12BK60042 (study unit)**

### *Lecturers*

- Conservator Anna Häkäri, MA
- Conservator Heikki Häyhä, MA
- Conservator Päivi Ukkonen

### *Objectives*

Students will become familiar with materials used in various buildings and their conservation.



### *Content*

- Properties of glass, ceramic, textiles, and paper
- Damage mechanisms and conservation

### *Literature / Study Material*

- Matiskainen: Suomalaisen lasin historia
- Jylhä–Vuorio: Keramiikan materiaalit
- Knuutinen: Paperin säilyvyyden kemia
- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Written and practical assignments

### *Assessment*

- Participation in the lectures
- Assignments
- Exam

### *Languages of Instruction*

Finnish

## **History of built environment 1, 4 op KH12BK10091 (study unit)**

### *Lecturers*

Landscape Architect Marketta Nummijärvi

### *Objectives*

Students will acquire a comprehensive knowledge of the history and styles of buildings in Finland.

### *Content*

Cultural history and construction in Finland during Swedish rule (1500–1800)

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Assignments

### *Assessment*

- Active participation in lectures
- Assignments
- Exam

### *Languages of Instruction*

Finnish

## **History of built environment 2, 4 op KH12BK10102 (study unit)**

### *Lecturers*

Landscape Architect Marketta Nummijärvi

### *Objectives*

Students will acquire comprehensive knowledge of the history and style of Finnish buildings.

### *Content*

Cultural history in the 19th and 20th centuries and construction in Finland from the time of Russian rule to the period of reconstruction

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Assignments

### *Assessment*

- Active participation
- Assignments
- Exam

## **Documentation 1, 4 op KH12BK50031 (study unit)**

### *Lecturers*

Conservator Outi Orhanen, MCE

### *Objectives*

Students will be familiar with the principles and methods of documentation and their application in various areas.

### *Content*

- Fundamentals and methods of documentation in conservation work
- Design and presentation of written documentation report including measurements, drawings, photographs and research findings
- Significance of photography in conservation, fundamentals of photography and preservation of pictures taken
- Discovery and documentation of the history of the conservation site/object, materials and structural properties of an object prior to conservation
- Using documentation material and archiving
- Digital pictures

### *Literature / Study Material*

- Heinonen, Lahti: Museologian perusteet, osa: dokumentointi
- Lecturer's material on photography
- Lecture notes

### *Learning Methods*

Lectures and personal lecture notes, practical work.

### *Assessment*

- Active participation in the lectures (min. 80 % attendance)
- Approved assignments
- Exam

### *Languages of Instruction*

Finnish

## **Documentation 2, 4 op KH12BK50043 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will have command of the principles and methods of working associated with the documentation of surface layers.

### *Content*

- Documenting surface layers
- Analysing colour layers and taking colour samples
- Analysing wallpaper samples and archiving
- Research photography and documentation
- Making surface layer fragments and documenting them
- Examining damage to surface layers and making reports about them

### *Literature / Study Material*

- Protecting state building heritage
- Lecturer's material
- Common documentation forms

### *Learning Methods*

- Lectures
- Practical assignments

### *Assessment*

- Active participation
- Approved assignments

## **Ethics of profession, 4 op KH12BK10011 (study unit)**

### *Objectives*

Students will be introduced to the conservator's profession and the fundamental questions and ethics associated with the field. Additionally, students will acquire an understanding of the history and development of conservation.

### *Content*

- Ethics and philosophy of conservation
- Conservation in museums
- Familiarisation with various sectors of conservation as well as with various conservators and their work environments
- Job description and future of building conservators
- History and theory of building conservation and restoration
- Developing of the concept of conservation throughout the centuries

### *Literature / Study Material*

Material provided by the lecturer.

### *Learning Methods*

- Lectures
- Assignments
- Participation in field trips

### *Assessment*

- Active participation
- Exam
- Assignments

## **Museology and Preservation of Buildings, 3 op KH12BK10014 (study unit)**

### *Lecturers*

Conservator Outi Orhanen, MCE

### *Objectives*

Students will become familiar with the organisation, duties and functions of the museum as an institution and learn about the conservation that takes place in museums. They will also be familiar with the legislation and problems associated with the protection of buildings. Students will be introduced to the various methods for protecting buildings and the possibilities preservation offers.

*Content*

Part 1: The museum as an institution; functions of the museum and legislation, safety in museums, museum collections and how to handle them. Part 2: Concepts pertaining to building preservation, construction-related legislation and zoning, ways to become accustomed to protecting buildings in Finland, the protection process and all that is involved, and role of the conservator in the protection process

*Literature / Study Material*

Part 1:

- Lecturer's material
- Heinonen–Lahti: Museologian perusteet
- Recommendations of the Finnish Museums Association

Part 2:

- Lecturer's material
- International regulations and recommendations
- Laws and decrees at [www.finlex.fi](http://www.finlex.fi)

*Learning Methods*

- Lectures
- Assignments
- Field trips

*Assessment*

- Active participation
- Approved assignments and reports

## **Seminars and site visits, 2 op KH12BK10013 (study unit)**

*Objectives*

Students will be familiar with the field of conservation and the people involved in the profession. They will be introduced to current issues being discussed in the field.

*Content*

- Familiarisation with conservation sites and essential institutions in the field of conservation, as well as with partners involved in the field
- Participation in current-issues seminars
- Acquisition of the latest, field-related information

*Literature / Study Material*

- Lecturer's material
- Material from the seminars
- Material from the conservation sites
- Lecture notes

*Learning Methods*

Participation in field trips, seminars and lectures

*Assessment*

- Active participation
- Approved assignments
- Field trip reports

## **FREE CHOICE STUDIES, 10 op KH12VVO (study entity)**

Objectives and contents: Students will complement their knowledge of various subjects, e.g. languages, handicraft skills, etc. They may choose topics from other schools within the Seinäjoki University of Applied Sciences or other university of applied sciences. Students have the opportunity to deepen their knowledge of building conservation in the following courses:

- Wallpaper Making (4 cr)
- Gilding (2 cr)
- Decorative Painting (2 cr)
- Machines and Safety (2 cr)
- Making a Profile Plane (2 cr)
- Plaster Work (2 cr)
- Masonry Ovens (3 cr)

## **Machines and safety, 2 op KH12BV10007 (study unit)**

### *Lecturers*

Conservator Matti Laine, BSc

### *Objectives*

Students will have command of the safety issues and regulations involved in construction work and be competent in working safely when working with fire.

### *Content*

- Fire safety and protecting the personnel
- Working safely with fire

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

- Lectures
- Assignments
- Exam

### *Assessment*

- Active participation in lectures (100 % attendance required)
- Assignments

### *Languages of Instruction*

Finnish

## **Preparation of a profile handplane, 2 op KH12BV10008 (study unit)**

### *Objectives*

Students will possess competency in making their own tools for wood working.

### *Content*

- Handplanes and how they work
- Materials and shaping them into finished profile planes

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Practical work preparing raw material into a finished product

### *Assessment*

Active participation (min. 80 % attendance required) and a finished handplane

### *Languages of Instruction*

Finnish

## **Gilding, 2 op KH12BV10003 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will complement their knowledge of various gilding techniques and acquire a feel for how various materials behave.

### *Content*

Gilding techniques such as brilliant gilding, oil gilding and bronzing

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Practical assignments

### *Assessment*

- Active participation
- Approved assignments

### *Languages of Instruction*

Finnish

## **Decorative painting, 2 op KH12BV10004 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will complement their knowledge of decorative painting.

### *Content*

- Popular decorative painting
- Decorative painting of building ornaments by hand

### *Literature / Study Material*

- Lecturer's material
- Lecture notes

### *Learning Methods*

- Lectures
- Practical assignments

### *Assessment*

- Active participation
- Assignments

### *Languages of Instruction*

Finnish

## **Plaster work, 2 op KH12BV10005 (study unit)**

### *Lecturers*

Conservator Liisukka Oksa

### *Objectives*

Students will complement their knowledge of casting building gypsum and making gypsum mass.

### *Content*

- Making various moulds and gypsum mass
- Casting and surface treatment of gypsum

#### *Literature / Study Material*

- Lecturer's material
- Lecture notes

#### *Learning Methods*

- Lectures
- Practical assignments

#### *Assessment*

- Active participation
- Assignments

#### *Languages of Instruction*

Finnish

### **Wallpaper preparation, 4 op KH12BV10011 (study unit)**

#### *Lecturers*

Conservator Liisukka Oksa

#### *Objectives*

Students will be familiar with the techniques and tools for silk screen printing and will know how to make wallpaper from an existing model.

#### *Content*

- Positioning a wallpaper report
- Making a silk printing screen
- Printing wallpaper

#### *Literature / Study Material*

- Manufacturer's instructions for materials
- Lecturer's material
- Lecture notes

#### *Learning Methods*

- Lectures
- Practical assignments

#### *Assessment*

Approved assignments

### **Bricklaying of oven, 3 op KH12BV10010 (study unit)**

#### *Objectives*

Students will be familiar with the technical and structural properties and differences of various ovens.

#### *Content*

- Dismounting and assembling various types of ovens
- Choosing conservation and restoration techniques in various problematic situations

#### *Literature / Study Material*

- Lecturer's material
- G.E. Asp. 1948. Uuninmuuraaja
- Heikkinen, Heinämies, Jaatinen, Kaila, Pietarila. 1989. Talo kautta aikojen – Kiinteän sisustuksen historia
- National Board of Antiquities: Repair index – Tulisijat, 1994

### *Learning Methods*

- Lectures
- Practical assignments

### *Assessment*

- Active participation in lectures
- Assignments
- Reports

### *Languages of Instruction*

Finnish

## **THESIS, 15 op KH12FK80 (study entity)**

Course objectives and content:

- Students learn to apply the knowledge they have gained during their studies to a conservation project
- Theoretical and practical project in conservation carried out independently
- Written report about the project
- Presentation of the work and results at the final seminar

Literature/Study material:

- All possible field-related material
- Degree programme-specific instructions
- Seinäjoki University of Applied Sciences Instructions for Writing a Thesis and Instructions for Writing a Report

Learning methods and assessment:

- Degree programme's separate guidebook for writing a thesis
- Written report, presentation of results in a seminar and Maturity Test

## **PRACTICAL TRAINING, 30 op KH12EH (study entity)**

Objectives and content:

- Opportunity for students to strengthen their knowledge in their field of specialization and of the work itself and to apply theory to practice
- Field-related work

Literature/Study material:

- All possible field-related material
- Degree programme's guidebook for training

Learning methods and assessment:

- Practical work during summer holidays and one semester
- References from employers and reports



# Degree Programme in Construction Engineering (In Finnish)

## SPECIALISATIONS

HVAC Engineering (Heating, Ventilating, Air Conditioning)  
Building Construction – Structural Design  
Building Construction – Production

## QUALIFICATION AWARDED

Bachelor of Engineering

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PROFILE OF THE PROGRAMME

The purpose of the Degree Programme in Construction Engineering is to provide students with a bachelor's degree in construction engineering. Students gain skills in structural design, production, entrepreneurship and management. Emphasis in the degree programme is placed on construction with wood and steel. Students receive comprehensive training in the various duties in the field of construction: design, manufacturing, management, exports, marketing, entrepreneurship, modern communication, computer technology, and team work. The school's extensive, close connections with international actors provide students with the opportunity to acquire skills in an international environment in the fields of design, production, management, exports, and entrepreneurship. Students acquire practical skills in the programme's modern laboratories, construction studio, and through practical training periods with the school's partners in the business world.

## KEY LEARNING OUTCOMES

### *Competence in environmental responsibility and life cycle analysis in construction*

A Bachelor of Engineering

- \* is familiar with environmental impact management of building materials and job site production
- \* is familiar with life-cycle technology management
- \* is familiar with product service time design
- \* is familiar with real estate and facility management

### *Competence in structural design*

A Bachelor of Engineering

- \* is familiar with the structural building and environmental materials design
- \* is familiar with static control of structures
- \* is able to use laws of building physics in design
- \* is familiar with safety of structures and materials
- \* commands heating, ventilating, air conditioning and electrical automation design in building design

### *Competence in the construction production*

A Bachelor of Engineering

- \* is competent in building and environmental construction management and contracting
- \* is competent in production management
- \* is familiar with quality control and safety engineering in construction
- \* commands heating, ventilating, air conditioning and electrical automation design in production

### *Competence in construction economics*

A Bachelor of Engineering

- \* understands the principles of construction economics
- \* knows how to control production economics
- \* understands construction company economics

### *Competence in renovation*

A Bachelor of Engineering

- \* understands the values of buildings in use, historical values and the beauty of buildings of different periods
- \* understands building preservation possibilities
- \* is familiar with materials, structures and construction techniques of different periods
- \* understands condition reports and building use and their effect on building materials and structures and their methods of renovation

## ACCESS TO FURTHER STUDIES

See act 351/2003 concerning Finnish universities of applied sciences (in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at

- \* RAK 2009LVI, Specialisation in HVAC Engineering (Heating, Ventilating, Air Conditioning), 240 cr (1.9.2009)
- \* RAK 2009RASU, Specialisation in Building Construction – Structural Design, 240 cr (1.9.2009)
- \* RAK 2009TUTE, Specialisation in Building Construction – Production, 240 cr (1.9.2009)

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

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## Study Descriptions

### **BASIC STUDIES, 50 op KC05AR00 (study entity)**

The purpose of the Basic Studies is to provide students with the knowledge and methodology needed in scientific thinking, to achieve professional skill and and to prepare them for their Professional Studies.

### **Languages and communication, 20 op KC05AR000 (study entity)**

The Languages and Communication Module provides students with the knowledge and skills they need to communicate with representatives of their own field and other professional fields. Students will be competent in interacting with others in their first language and a foreign language.

### **Introduction to engineering studies, 2 op KC05AR00001 (study unit)**

#### *Lecturers*

- Heikki Ylihärsilä, LSc (Tech.)
- Information Specialist Pasi Selin

#### *Objectives*

Students will become familiar with various study techniques and their chosen field of study. They will be competent in finding needed information and utilising research methods. Upon completion of the course, students will be aware of their personal learning style and understand the significance of their chosen professional field. They will be familiar with the various channels for acquiring information, the principles of scientific research, and know how to write a research report. Students will also be familiar with the ethical issues pertaining to engineering.

#### *Content*

- Studying and learning
- Significance of one's professional field in the national economy
- Field-related labour organisations
- Library and information services
- Databases, finding information on databases
- Finding information on the Internet
- Scientific research and research methodology

*Literature / Study Material*  
Material distributed by the teacher

*Learning Methods*

- Lectures
- Exercises
- Independent assignment

*Assessment*  
Approved assignments

*Languages of Instruction*  
Finnish

## **Communication and negotiation 1, 3 op KC05AR00002 (study unit)**

*Lecturers*  
Helena Mikkilä

*Objectives*  
Students will be competent in communicating clearly and coherently and writing the more common types of texts needed in the educational and working environments. They will also be familiar with the protocol in official meetings. Students will be aware of the importance of communication in the working world. They will be capable of assessing their skills in Finnish and communication and have the desire to develop those skills further as part of their professional development.

*Content*

- Principles of communication
- Language maintenance
- Layout of a text and document standards
- Business correspondence
- Notices
- Everyday communication in the working world
- Applying for a job and associated texts
- Conference technology and documents

*Literature / Study Material*  
Kauppinen A., Nummi J. & Savola T. 2005. Tekniikan viestintä. Kirjoittamisen ja puhumisen käsikirja. 4th or 5th edition. Edita.

*Learning Methods*

- Work in pairs and small groups
- Oral exercises
- Written exercises

*Assessment*

- Active participation in lessons and exercises
- Written exercises
- Portfolio
- Exam

*Languages of Instruction*  
Finnish

## **Communication and negotiation 2, 3 op KC05AR00003 (study unit)**

*Lecturers*  
Helena Mikkilä

*Objectives*  
Students will be competent in appropriately communicating and interacting in various situations in the working world and in presenting their opinions, etc. convincingly and explicitly. They will also be competent in writing academic texts.

### *Content*

- Instructions
- Proposals
- Reports
- Investigative writing: Instructions for Writing a Thesis, assessing the reliability of sources and citation, writing process
- Argumentation
- Purposeful discussions
- Skills in speaking and making presentations in the working world
- Seminars

### *Literature / Study Material*

- Kauppinen A., Nummi J. & Savola T. 2005. Tekniikan viestintä. Kirjoittamisen ja puhumisen käsikirja. 4th or 5th edition. Edita
- Instructions for Writing a Thesis (Seinäjoki UAS)

### *Learning Methods*

- Work in pairs and small groups
- Oral exercises
- Written exercises

### *Assessment*

- Active participation in lessons and exercises
- Written and oral exercises
- Written assignment and the presentation of it

### *Languages of Instruction* Finnish

## **Swedish, 3 op KC05AR00004 (study unit)**

### *Lecturers* Riikka Ala-Sankila, MA

### *Objectives*

Upon completion of the course, students will be competent in using the Swedish language in their working environment. They will be competent in communicating fluently and acquiring and utilising field-related information in Swedish.

### *Content*

- Telling about one's education
- Applying for a job
- Work, the work environment and society
- Customer contacts
- General texts
- Field-related terminology

### *Literature / Study Material* To be announced.

### *Learning Methods*

- Lectures
- Listening comprehension
- Oral exercises
- Written assignments in pairs, in groups and independently

### *Assessment*

- Active participation in classroom teaching
- Tests during the course and at the end

*Languages of Instruction*  
Finnish and Swedish

## **English 1, 3 op** **KC05AR00005 (study unit)**

*Lecturers*  
Riikka Ala-Sankila, MA

### *Objectives*

Students will enhance their oral and written skills and learn to tell about the kind of education they have and their work experience. They will develop their skills in communication needed in the working world. They will be familiar with essential, field-related vocabulary and be competent in using it when speaking and writing texts.

### *Content*

- Effective communication
- Sources of information
- Internet
- Education
- Skills in the protocol for meetings and negotiations
- Giving a presentation
- Writing e-mails and making telephone calls
- Field-related texts
- Informal oral presentation
- Texts in the textbook

### *Literature / Study Material*

Isaacs, Palmroth, Rasimus, Rönkä: Engineer Your English. Edita.

### *Learning Methods*

- Oral and written exercises and assignments
- Work in pairs, small groups and alone

### *Assessment*

- Active participation in lessons and exercises
- Oral presentation
- Written exam
- Command of vocabulary
- Other tasks required during the course

*Languages of Instruction*  
Finnish and English

## **English 2, 3 op** **KC05AR00006 (study unit)**

### *Objectives*

Students will reinforce their oral and written skills in English, written communication and business correspondence. They will become familiar with demanding texts and literature related to the field of construction engineering, and understand the vocabulary in the texts they read. They will be competent in using that vocabulary when speaking and writing.

### *Content*

- Basic business correspondence: business terminology
- Finding information from texts pertaining to construction engineering and processing them mentally
- Oral and written summaries
- Field-related oral presentation
- Texts from the textbook
- Trade fair
- Processes

### *Literature / Study Material*

- Huhta M. Connections: Communication Guidelines for Engineers (latest edition). Edita
- Field-related texts and other material

### *Learning Methods*

- Oral and written exercises
- Work in pairs, small groups and independently

### *Assessment*

- Active participation in lessons and exercises
- Oral presentation
- Written exam
- Other tasks required during the course

### *Languages of Instruction*

Finnish and English

## **English 3, 3 op KC05AR00007 (study unit)**

### *Lecturers*

Riikka Ala-Sankila, MA

### *Objectives*

Students will reinforce their oral and written skills in English and maintain the skills they have already developed. They will learn how to write summaries and read extensive texts related to the field of construction engineering. They will have command of the vocabulary in those texts and of the vocabulary needed in meetings and negotiations. They will be competent in summarising texts orally and in writing and in using advanced vocabulary when speaking and writing.

### *Content*

- Reading and writing texts pertaining to technology
- Writing a thesis abstract
- Presentations
- Meetings
- Interviews
- Field-related texts
- Texts from the textbook

### *Literature / Study Material*

- Huhta M. Connections: Communication Guidelines for Engineers (latest edition). Edita
- Field-related texts and material

### *Learning Methods*

- Oral and written exercises and assignments
- Work in pairs, small groups and alone

### *Assessment*

- Active participation in lessons and exercises
- Oral presentation
- Written exam
- Other tasks required during the course

### *Languages of Instruction*

Finnish and English

## **Mathematics, 16 op KC05AR001 (study entity)**

The Mathematics Modules provides students with the mathematical knowledge and skills they need later in their Professional Studies and the working world when they encounter mathematical problems. Students will understand that mathematics can be used as a basic tool to model phenomena in nature.

## **Algebra and trigonometry, 4 op KC05AR00101 (study unit)**

### *Lecturers*

Juhani Paananen, MSc (Eng.) and MA

### *Objectives*

Students will acquire the mathematical knowledge and skills they need to complete their studies in technology. The level they achieve will be equivalent to the level of advanced mathematics in upper secondary school.

### *Content*

- Algebra
- Reducing mathematical expressions
- Solving equations
- Trigonometry

### *Literature / Study Material*

- Majaniemi A. 1999. ALGEBRA I. Tietokotka Oy.
- Majaniemi A. 1999. GEOMETRIA : geometriaa, trigonometriaa ja vektorilaskentaa. Tietokotka Oy.

### *Learning Methods*

- Lectures
- Calculations
- Independent study

Students are required to attend at least 80 % on the lessons to be able to complete the course.

### *Assessment*

- Two mid-term exams or one final exam
- Points accrued from calculations

Students who have studied advanced mathematics in upper secondary school may complete the course by taking a course exam at the beginning of the academic year.

### *Languages of Instruction*

Finnish

## **Vectors and matrices, 3 op KC05AR00102 (study unit)**

### *Lecturers*

Juhani Paananen, Msc (Eng.) and MA

### *Objectives*

Students will acquire the knowledge and skills in mathematics they need for their studies in technology. The level of knowledge students acquire is equivalent to that acquired in advanced mathematics courses in upper secondary school.

### *Content*

- Algebra
- Reducing mathematical expressions
- Solving equations
- Trigonometry

### *Literature / Study Material*

- Majaniemi A. 1999. ALGEBRA I. Tietokotka Oy.
- Majaniemi A. 1999. GEOMETRIA : geometriaa, trigonometriaa ja vektorilaskentaa. Tietokotka Oy.

### *Learning Methods*

- Lectures
- Calculations
- Independent study

Students are required to attend at least 80 % of the lessons to be able to complete the course.

*Assessment*

- Two mid-term exams or final exam
- Calculations

Students who have completed advanced studies in mathematics in upper secondary school have the opportunity to take an exam held at the beginning of the academic year to receive credit for the course.

*Prerequisites*

- Algebra
- Trigonometry

*Languages of Instruction*

Finnish

## **Differential and integral calculus, 3 op KC05AR00103 (study unit)**

*Lecturers*

Juhani Paananen, Msc (Eng.) and MA

*Objectives*

Students will acquire basic knowledge of one-variable differential and integral mathematics, which they will use in their Professional Studies and which provides a basis for the learning of demanding technical and mathematical knowledge in the future.

*Content*

One-variable differential and integral mathematics

*Literature / Study Material*

- Majaniemi A. 1998. MATEMATIIKKA I – Differentiaali- ja integraalilaskentaa insinööriopiskelijoille. Tietokotka Oy.
- Majaniemi A. 1998. MATEMATIIKKA II – Differentiaali- ja integraalilaskentaa sekä differentiaaliyhtälöitä. Tietokotka Oy.

*Learning Methods*

- Lectures
- Calculations
- Independent study

*Assessment*

- Two mid-term exams of one final exam
- Calculations

*Prerequisites*

- Algebra
- Trigonometry

*Languages of Instruction*

Finnish

## **Differential equations and business mathematics, 3 op KC05AR00104 (study unit)**

*Lecturers*

Juhani Paananen, Msc (Eng.) and MA

*Objectives*

Students will acquire basic knowledge of differential equations and business mathematics, which they will use in their Professional Studies and which provides a basis for the learning of demanding technical and mathematical knowledge in the future.

*Content*



- Differential equations
- Business mathematics

#### *Literature / Study Material*

- Majaniemi A. 1998. MATEMATIIKKA II – Differentiaali- ja integraalilaskentaa sekä differentiaaliyhtälöitä. Tieto-kotka Oy.
- Karjalainen L. 2005. OPTIMI – Matematiikkaa talouselämän ammattilaisille. Pii-kirjat.

#### *Learning Methods*

- Lectures
- Calculations
- Independent study

#### *Assessment*

- Two mid-term exams or one final exam
- Calculations

#### *Prerequisites*

- Algebra
- Trigonometry
- Differential and Integral Calculations

#### *Languages of Instruction*

Finnish

### **Statistics, 3 op KC05AR00105 (study unit)**

#### *Lecturers*

Juhani Paananen, Msc (Eng.) and MA

#### *Objectives*

Students will acquire basic knowledge of the topics listed in the Contents, which they will use in their Professional Studies and which provides a basis for the learning of demanding technical and mathematical knowledge in the future.

#### *Content*

- Mathematical statistics, especially methods used in the processing of measurement data
- Use of mathematical software
- Descriptive geometry

#### *Literature / Study Material*

Majaniemi A. 1998. MATEMATIIKKA IV – Tilastot ja todennäköisyys. Tietokotka Oy.

#### *Learning Methods*

- Lectures
- Calculations
- Independent study

#### *Assessment*

- Two mid-term tests or a final exam
- Point from the completed calculations

#### *Prerequisites*

- Algebra
- Trigonometry

#### *Languages of Instruction*

Finnish

## **Physics, 10 op KC05AR002 (study entity)**

The Physics Module provides students with understanding of the physical phenomena that occur in nature. Being knowledgeable of the laws of physics sets the foundation for designing and executing new applications.

### **Basics of physics, 4 op KC05AR00201 (study unit)**

#### *Lecturers*

Katja Miettinen, MSc (Eng.)

#### *Objectives*

Students will acquire basic knowledge of the topics listed in the Contents. The course provides students with a basis for the learning of demanding technical knowledge in the working world.

#### *Content*

- Kinematics
- Laws of Newton
- Work
- Power
- Energy
- Impulse
- Linear momentum
- Rotating motion
- Mechanics of states
- Thermology
- Electrostatics
- Direct-current circuits
- Alternating current circuits

#### *Literature / Study Material*

- Hautala, Peltonen: Insinöörin (AMK) Fysiikka osa I ja II (Lahden Teho–Opetus Oy)
- Lecture notes

#### *Learning Methods*

- Lectures
- Homework
- Calculations

Students are required to attend at least 80 % of the lessons to be able to complete the course.

#### *Assessment*

Exam

#### *Languages of Instruction*

Finnish

## **Wave and modern physics, 3 op KC05AR00202 (study unit)**

#### *Lecturers*

Katja Miettinen, MSc (Eng.)

#### *Objectives*

The course provides students with basic knowledge of vibration, the theory of wave motion, acoustics, wave optics, geometrical optics, quantization of radiation, x-ray technology, laser technology, and nuclear physics. Students acquire the knowledge and skills they need learn demanding technical information in the working world.

#### *Content*

- Vibration
- Theory of wave motion
- Acoustics
- Wave optics

- Geometrical optics
- Quantization of radiation
- X-ray technology
- Laser technology
- Nuclear physics

#### *Literature / Study Material*

- Hautala, Peltonen: Insinöörin (AMK) Fysiikka osa II (Lahden Teho–Opetus Oy).
- Lecture notes

#### *Learning Methods*

- Lectures
- Homework
- Calculations

#### *Assessment*

Exam

#### *Prerequisites*

Introduction to Physics

#### *Languages of Instruction*

Finnish

### **Physics laboratory works, 3 op KC05AR00203 (study unit)**

#### *Lecturers*

Katja Miettinen, MSc (Eng.)

#### *Objectives*

The purpose of the course is to provide students with the knowledge and skills they need to carry out experimental measurements in physics, to process results and to report their findings. They will also learn how to use physics in the different areas of technology.

#### *Content*

Laboratory work in the different areas of physics and technology

#### *Literature / Study Material*

Guidelines for doing physics assignments (Seinäjoki University of Applied Sciences / School of Technology)

#### *Learning Methods*

Active participation in laboratory work and assignments NB! Students are required to attend at least 90 % of the lessons to be able to complete the course.

#### *Assessment*

- Reports
- Exam based on work in the laboratory

#### *Prerequisites*

Introduction to Physics

#### *Languages of Instruction*

Finnish

### **Information technology, 4 op KC05AR003 (study entity)**

The Information Technology Module provides students with the knowledge and skills they need when using the IT equipment at Seinäjoki UAS. Students will also be familiar with the more important software used by students.

### **CAD, 2 op KC05AR00301 (study unit)**

### *Lecturers*

Marita Viljanmaa, MSc (Eng.)

### *Objectives*

Students will acquire basic knowledge of the computer-aided designing systems (CAD) used in the field of construction. They will be aware of the features of and differences in drawings and product models.

### *Content*

- CAD software and how it works
- Data modelling
- 3D modelling

### *Literature / Study Material*

Handbooks and instructions for CAD

### *Learning Methods*

- Lectures
- Work on the computer
- Exercises with CAD
- Compulsory assignment

### *Assessment*

Approved assignment

### *Prerequisites*

- Introduction to Construction
- Building Construction Engineering

### *Languages of Instruction*

Finnish

## **Office applications, 2 op KC05AR00302 (study unit)**

### *Lecturers*

Jari Kattelus

### *Objectives*

Students will be introduced to the software computer systems most commonly used by students at Seinäjoki UAS, and they will learn how to use them well. Upon completion of the course, students will understand IT terminology, be aware of the role of IT in society and be competent in applying IT to the tasks in their professional field.

### *Content*

- IT systems at Seinäjoki UAS: Intranet, Study Register, online learning environment and the equipment in use
- Online services: e-mail, website, and creating a website
- Word processing programmes
- Spreadsheets
- Graphics applications
- Mathematics applications

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

- Lectures
- Exercises
- Independent study

### *Assessment*

- Written exam
- Approved exercises

*Languages of Instruction*  
Finnish

## **BASICS OF PROFESSIONAL STUDIES, 46 op** **KC05BR10 (study entity)**

The purpose of the Foundations in Professional Studies for Construction Engineering is to provide students with basic knowledge of the technology involved in building buildings and to lay the foundation for the subsequent courses in the Professional Studies Module.

## **Construction Drawing, 3 op** **KC05BR100 (study entity)**

The purpose of the module is to provide students with the knowledge and skills they need to produce drawings for buildings, structures, heating, plumbing and ventilation and to teach them how to read the drawings in question.

## **Construction CAD, 4 op** **KC05BR10002 (study unit)**

*Lecturers*  
Marita Viljanmaa, MSc (Eng.)

*Objectives*  
Students will acquire basic knowledge in the computer-aided design programmes (CAD) used in the field of construction and be competent in using the programmes to design building and structures. They will be familiar with the characteristics of and differences between drawings and product models as well as with the rules governing modelling.

### *Content*

- User interfaces for CAD software and how they work
- Primary drawings, workshop drawings and structural drawings
- Modelling

### *Literature / Study Material*

- CADS and ArchiCad manuals and instructions
- Instructions for data models

### *Learning Methods*

- Lectures
- Computer work
- CAD assignments and exercises

### *Assessment*

- Tests on how to use the programmes
- Approved assignments

### *Prerequisites*

- Introduction to Construction
- Building Technology

## **HVAC-CAD, 3 op** **KC05BR10001 (study unit)**

*Lecturers*  
To be announced.

*Objectives*  
Students will be introduced to designing programmes for heating, plumbing and ventilation, their properties and the data transfer involved in those programmes. They will be competent in documenting the work, etc. carried out in heating, plumbing and ventilation projects. Students will be familiar with the features and differences in drawings and data models as well as the principles behind the rules for modelling.

### *Content*

- Programmes most commonly used
- Drawing symbols
- Layouts for heating, plumbing and ventilation
- Cutouts
- Connection diagrams
- Axonometric drawings for piping
- Collision inspections

#### *Literature / Study Material*

- Instruction manuals for CAD programmes
- Instructions for data models

#### *Learning Methods*

- Lectures
- Work on the computer
- CAD exercises
- Assignments

#### *Assessment*

- Tests on how to use the programmes
- Approved assignments

#### *Prerequisites*

- Introduction to Construction
- Introduction to Heating, Plumbing and Ventilation Technology
- CAD Programmes

#### *Languages of Instruction*

Finnish

## **Building Materials, 5 op KC05BR101 (study entity)**

Students will be familiar with the materials used in construction and their properties, ways of being manufactured and the places where they can be used.

## **Materials, 3 op KC05BR10101 (study unit)**

#### *Lecturers*

Arto Saariaho, BSc (Eng.)

#### *Objectives*

Students will be familiar with the materials used in construction as well as with the properties of those materials, how they are manufactured, how they work and where they are used.

#### *Content*

- Wood
- Natural stone
- Bricks
- Ceramic tiles
- Mortar
- Lightweight concrete
- Metals
- Plastics
- Thermal insulation
- Moisture and water insulation
- Fillers
- Paints
- Wallpaper
- Flooring

#### *Literature / Study Material*

- Building Information Card as applies
- Material distributed by the teacher

#### *Learning Methods*

Lectures and seminars

#### *Assessment*

Lectures and seminars

#### *Languages of Instruction*

Finnish

### **Concrete technology, 3 op KC05BR10102 (study unit)**

#### *Lecturers*

Jorma Tuomisto, MSc (Eng.)

#### *Objectives*

Students will have command of the proportioning of concrete and the use of additives as well and the preparation, transfer and casting of concrete. They will be competent supervisors and be familiar with issues pertaining to quality control. They will also be capable of utilising various techniques for preparing concrete.

#### *Content*

- Proportioning methods and recipes for preparing concrete
- Familiarisation with the properties of concrete mass
- Preparation and transfer techniques
- Moulds and reinforcements
- Casting techniques and concrete curing
- Managing the conditions on the building site during the different seasons
- Monitoring the development of strength
- Methods in quality control and the properties they test
- Classification of environmental conditions
- Qualifications required for materials and employees

#### *Literature / Study Material*

- Betoniteknikan oppikirja by 201–2004 or newer edition
- Betoninormit by 50–2004 or newer edition
- Excel
- Material distributed by the teacher

#### *Learning Methods*

- Lectures
- Calculations
- Laboratory work

#### *Assessment*

- Mid-term tests or final exam
- Exercises

#### *Prerequisites*

Introduction to Construction

#### *Languages of Instruction*

Finnish

### **Chemistry of building materials, 2 op KC05BR10103 (study unit)**

#### *Lecturers*

Kristiina Peltoniemi, MSc (Eng.)

#### *Objectives*

Students will be introduced to the various chemical properties of construction materials and how they behave.

### *Content*

- Metals, types of steel, corrosion and hardening
- Structure and properties of wood
- Plastics and other polymers in the living environment
- Yleisimmät liuotinaineet ja liimat.
- Ingredients in paints and varnishes
- Ceramic raw materials
- Chemical durability of concrete
- Impact of moisture on construction materials
- Moulds and actinomycosis: conditions for growth and consequences
- Radon
- Impact of construction materials on the indoor air and VOC

### *Literature / Study Material*

Material distributed by the teacher.

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Languages of Instruction*

Finnish

## **Structural Mechanics, 8 op KC05BR102 (study entity)**

The module provides students with basic knowledge of how to determine the strain and shifting of various structures.

## **Statics, 4 op KC05BR10201 (study unit)**

### *Lecturers*

Martti Perälä, MSc (Tech.)

### *Objectives*

Students will be competent in handling systems generating force and calculating quantities of force with balance equations. They will understand the significance of the balance of a strained object and be capable of determining stress patterns for ordinary structures such as rods, beams, frames and trusses.

### *Content*

- Resultant and objects of force
- Torque
- Surface centre
- Torque in relation to a point and axle
- Calculating the force of a moving object
- Reaction of abutment of a structure
- Conditions for the balance of a structure
- Force quantities and stress patterns of rods, beams and frames
- Statically determined force of a rod in a truss
- Recognising a statically determined structure

### *Literature / Study Material*

- Tapio Salmi: Statiikka. Pressus Oy: Tampere
- Material distributed by the lecturer

### *Learning Methods*

- Lectures
- Calculations
- Homework



### *Assessment*

Two mid-term exams or one final exam and approved homework

### *Prerequisites*

- Vectors and Matrices
- Introduction to Physics

### *Languages of Instruction*

Finnish

## **Strength of materials, 4 op KC05BR10202 (study unit)**

### *Lecturers*

Martti Perälä, LSc (Tech.)

### *Objectives*

Students will be familiar with the basic concepts associated with the strengths of materials and with the measurement of simple structures such as rods and straight beams when pulled, compressed, bent, twisted and buckled. They will be competent in calculating tension and changes in shape in the structures in question.

### *Content*

- Laws of materials
- Normal tension and tension caused by bending, cutting and twisting
- Tensile strength and transition
- Deflection curve of beams
- Buckling
- Principle stress
- Reference tension
- Damage hypotheses
- Theory of Plasticity

### *Literature / Study Material*

- Outinen, Koski, Salmi: Lujuusopin perusteet Pressus Oy: Tampere
- Karhunen, Lassila, Pyy, Ranta, Räsänen, Saikkonen & Suosara: Lujuusoppi. Otatieto
- Other material distributed by the lecturer

### *Learning Methods*

- Lectures
- Calculations
- Homework

### *Assessment*

- Two mid-term exams or one final exam
- Approved homework

### *Prerequisites*

Statics

### *Languages of Instruction*

Finnish

## **Statically indeterminate frame structures, 4 op KC05BR10203 (study unit)**

### *Lecturers*

Martti Perälä, LSc (Tech.)

### *Objectives*

Students will be familiar with the more common statically undefined rod structures in structural design and be competent in determining the strain on them and changes in their shape.

### *Content*

- Determining the quantities of force in statically undefined rod structures
- Principles pertaining work and energy, unit force method, general force method, torque and angle variation method
- Sway mode structure and non–sway structure
- Calculation programmes

#### *Literature / Study Material*

- Loikkanen: Rakenteiden statikka II
- Other material as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Calculations
- Homework

#### *Assessment*

- Two mid–term exams or one final exam
- Approved homework

#### *Prerequisites*

- Statics
- Strength of Material

#### *Languages of Instruction*

Finnish

### **House Building, 8 op KC05BR103 (study entity)**

The module familiarises students with the principles of construction and provides them with the knowledge base they need for their Professional Studies.

### **Basics of FEM, 3 op KC05BR10204 (study unit)**

#### *Lecturers*

Martti Perälä, MSc (Tech.)

#### *Objectives*

Students will be familiar with the principles of the finite–element method and be competent in utilising it to determine shifts in latticed structures and strain.

#### *Content*

- Basis of the finite–element method
- Beam, truss and frame elements
- Degrees of freedom
- Rigidity matrix and strain vectors
- Shifts in joints and joint strength
- Balance equations for joint strength
- Calculating the strain on a latticed structure
- Calculation programmes

#### *Literature / Study Material*

Material distributed by the teacher.

#### *Learning Methods*

- Lectures
- Calculations
- Homework

#### *Assessment*

- Two mid-term tests or one final exam
- Approved homework

#### *Prerequisites*

- Strength of Materials
- Statically Undetermined Latticed Structures

#### *Languages of Instruction*

Finnish

### **Basics of construction, 3 op KC05BR10301 (study unit)**

#### *Lecturers*

Arto Saariaho, BSc (Eng.)

#### *Objectives*

Students will acquire knowledge of construction projects and how to carry them out. They will be familiar with field-related terminology, the symbols used in drawings, and know how to obtain information from different sources. They will also have knowledge of various types of concrete materials and where such materials can be used, as well as the types of machines used on construction sites and how to use them.

#### *Content*

- Parties to a construction contract, phases and ways of carrying out a construction project
- Applying for a building permit and building inspection
- Areas and volumes of buildings
- Building technology and names of the parts of buildings
- Sources of information in the field of construction
- Drawing practices and symbols: general drawings, workshop drawings and detailed drawings
- Ways of presenting drawings for buildings and structures, types of drawings, symbols, texts, and dimensioning
- Raw ingredients for making concrete and how to make them, composition of concrete and the basic characteristics of the material when fresh and when hardened
- Places where concrete can be used
- Basic concepts in the area of concrete
- Common qualifications
- Hoisting and transferring machines, excavation machines, scaffolding and hydraulic platform machines, common machines on working sites, pumps, conveyors
- Acquiring information about machines
- Perspectives pertaining to occupational safety

#### *Literature / Study Material*

- Building Information Index as assigned
- Suomen rakentamismääräyskokoelma A2: Rakennussuunnitelmat
- Building Information Index RT-15: Rakennuspiirustukset ja -selitykset
- Suomalainen sementti guidebook
- RT-konetietokortisto, RIL 88: Rakennuskoneet
- Other material as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Homework
- Assignments

#### *Languages of Instruction*

Finnish

### **Framework systems and basics of structural design, 4 op KC05BR10302 (study unit)**

#### *Lecturers*

Marita Viljanmaa, MSc (Eng.)

#### *Objectives*

Students will be familiar with framed systems, how they work and the criteria for choosing an appropriate framed

system. They will understand the duties of structural designers and know how to determine how much weight is placed on structures.

### *Content*

- Framed systems
- Requirements set for the frame of a building
- Shifts in weight
- Bracing frames
- Choosing appropriate frames
- Weight on structures
- Making structural calculations

### *Literature / Study Material*

- RIL 229–1–2006 ja 229–2–2006: Rakennesuunnittelun asiakirjaohje
- Example drawings and calculations
- Eurocodes
- Other material as indicated by the teacher

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

Introduction to Construction

### *Languages of Instruction*

Finnish

## **Framework systems, 2 op KC05BR10303 (study unit)**

### *Lecturers*

Marita Viljanmaa, MSc (Eng.)

### *Objectives*

Students will be familiar with framed systems, how they work and the criteria for choosing an appropriate framed system.

### *Content*

- Framed systems
- Requirements set for the frame of a building
- Shifts in weight
- Bracing frames
- Choosing appropriate frames

### *Literature / Study Material*

As indicated by the lecturer.

### *Learning Methods*

Lectures

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

Introduction to Construction

### *Languages of Instruction*

Finnish

## **Geotechnics and foundation engineering, 4 op KC05BR10304 (study unit)**

### *Lecturers*

Martti Kaunismäki

### *Objectives*

Students will be familiar with the properties of the soil and bedrock, how they behave and their suitability as a foundation for construction. They will be knowledgeable of foundations and their role in construction projects, the general principles pertaining to the designing of foundations and of the more common ways to build foundations.

### *Content*

- General discussion of the formation of the soil and bedrock, engineering geology, and the types of soils
- Geotechnical properties of soil types, load-bearing capacity, stability and compressibility of the ground
- Ground pressure, ground surveys
- Designing foundations, methods and doing foundation work, drying, frost protection and ground reinforcement

### *Literature / Study Material*

- Rantamäki, Jääskeläinen, Tammirinne: Geotekniikka ja Pohjarakennus
- Finnish Association of Civil Engineers 121: Pohjarakennusohjeet
- Finnish Association of Civil Engineers 132: Talonrakennuksen maarakenteet
- Finnish Association of Civil Engineers 207: Geotekninen suunnittelu
- Eurocodes
- LPO-87: Lyöntipaalutusohjeet
- Other material as indicated

### *Learning Methods*

- Lectures
- Laboratory work
- Exercises

### *Assessment*

- Approved laboratory work and exercises
- Mid-term tests or final exam

### *Prerequisites*

Building Construction

### *Languages of Instruction*

Finnish

## **Measuring techniques, 3 op KC05BR10305 (study unit)**

### *Lecturers*

Jouni Mäenpää, BSc

### *Objectives*

Students will acquire knowledge of geodetic surveying devices, the planning and implementation of working-site measurements, maps and property, and geodetic calculations. Upon completion of the course, students will be competent in carrying out various types of measurements needed on working-sites and in doing the calculations associated with such measurements.

### *Content*

- Distance
- Measuring angles and differences in height
- Surveying
- Control point surveying
- Dimensioning

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, measurements and calculations

### *Assessment*

Approved measurements and calculations and a final exam

### *Languages of Instruction*

Finnish

## **Environment, 3 op KC05BR104 (study entity)**

This module provides students with an overall understanding of environmental protection and zoning.

## **Sustainable development, 3 op KC05BR10401 (study unit)**

### *Lecturers*

Jorma Tuomisto, MSc (Eng.)

### *Objectives*

Students acquire comprehensive knowledge of environmental protection and the opportunities technology offers in the field. Students will understand what sustainable development entails, have a positive attitude toward environmental protection and act responsibly where the environment is concerned.

### *Content*

- Climate, climate quality
- Inland surface waterways and groundwater
- Soil
- Baltic Sea area
- Impact of humans on the environment, preventing adverse effects
- Overhauling spoiled land areas
- Sustainable development, energy-saving technology,
- Act on Waste, sorting, processing, recycling waste and disposal
- Environmental systems, permits, administration
- Directive on chemicals, European Chemicals Agency

### *Literature / Study Material*

Material distributed by the teacher.

### *Learning Methods*

Lectures and assignment

### *Assessment*

Exam and assignment

### *Languages of Instruction*

Finnish and English (if necessary)

## **Urban planning, 2 op KC05BR10402 (study unit)**

### *Lecturers*

Ilkka Loukola, MSc (Eng.)

### *Objectives*

Students will be familiar with the zoning plan system and land-use schemes. Upon completion of the course, students will understand the stages in the processing of zoning plans and be competent in reading them.

### *Content*

- Provincial zoning
- General zoning plan and city plans
- Building codes
- Symbols for different zoning plans
- Site layout plans
- Street engineering plans

### *Literature / Study Material*

- Land Use and Building Act + decree
- Zoning plan symbols
- Zoning plan regulations

### *Learning Methods*

Lectures and exercises

### *Assessment*

Assignment and an exam

### *Languages of Instruction*

Finnish

## **Basics of House Technology, 19 op KC05BR105 (study entity)**

The module familiarises students with heating, plumbing and ventilation technology, air flow and heat transfer technology, the engineering in heating, plumbing and ventilation systems, as well as the electrical and automation technology in buildings.

## **Basics of HVAC technology, 3 op KC05BR10501 (study unit)**

### *Lecturers*

Arto Martikkala, BSc (Eng.)

### *Objectives*

Students will be familiar with heating, plumbing and ventilation systems and how they work. Upon completion of the course, students will be familiar with the regulations and norms associated with heating, plumbing and ventilation and understand how to connect heating, plumbing and ventilation work to the different stages in designing and construction.

### *Content*

- Heating, plumbing, ventilation and sewage solutions for buildings and how those solutions work
- Regulations and norms pertaining to the solutions for heating, plumbing, ventilation and sewage

### *Literature / Study Material*

- Miettinen J.: Rakennusten LVIS-automaatio. RakMK D1–D7
- Material distributed by the lecturer

### *Learning Methods*

Lectures and assignments

### *Assessment*

Approved assignments and final exam

### *Languages of Instruction*

Finnish

## **Flow and heat transfer, 3 op KC05BR10502 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be competent in calculating the pressure loss in piping. They will understand and have command of different ways of transferring heat and of heat transmitters. They will be aware of the characteristics and criteria for choosing pumps, fans and heat transmitters.

### *Content*

- Air flow in piping and heat transmitters, pumps and fans
- Impact of thermodynamics in heating, plumbing and ventilation devices
- Radiation, conduction and convection

- Phase transition

*Literature / Study Material*

As indicated by the lecturer.

*Assessment*

- Approved assignments
- Final exam

*Languages of Instruction*

Finnish

**Mechanical Technology, 3 op  
KC05BR10503 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will learn about pumps and fans, how they work and the amount of energy they consume.

*Content*

- Hydrostatic, kinetic and centrifugal pumps
- Centrifugal, axial-flow and mixed-flow fans

*Literature / Study Material*

Material distributed by the teacher.

*Learning Methods*

Lectures and assignments

*Assessment*

Approved assignments and final exam

*Languages of Instruction*

Finnish

**Electrical and automation engineering 1, 2 op  
KC05BR10504 (study unit)**

*Lecturers*

Heikki Rajala

*Objectives*

Students will have basic knowledge of the electrical and automation systems in buildings and how they work. They will be familiar with the stages involved in planning electrical work and construction.

*Content*

- Electrical systems and how they work + regulations and norms
- Electrical installations in buildings
- Automation systems in buildings

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and assignments

*Assessment*

- Approved assignments
- Final exam

*Languages of Instruction*

Finnish



## **Electrical and automation engineering 2, 3 op KC05BR10505 (study unit)**

### *Lecturers*

Heikki Rajala

### *Objectives*

Students will understand the calibration and control technology associated with heating, plumbing and ventilation and be competent in applying their knowledge in the control, adjustment and monitoring of various systems. Additionally, students will be familiar with energy production, distribution and tariffs.

### *Content*

- Quantities in electrical devices and systems as regards direct currents and alternating currents
- Electric motors and the associated controls
- Considering space in a building for electrical devices and systems
- Customised systems in buildings

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

- Introduction to Heating, Plumbing and Ventilation
- Electrical and Automation Technology I

### *Languages of Instruction*

Finnish

## **Building automation system, 2 op KC05BR10506 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will understand the structures and features of various automation systems in buildings and how to use them.

### *Content*

- Theory of regulation
- Adjusting devices
- Logic
- Control and monitoring systems
- Principles of adjusting heating, plumbing and ventilation
- Automation channels
- Integrated systems

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

- Introduction to Heating, Plumbing and Ventilation
- Electric and Automation Engineering I and II

*Languages of Instruction*  
Finnish

## **Installations of house technology, 3 op KC05BR10507 (study unit)**

*Lecturers*  
To be announced.

*Objectives*  
Students will be competent in reading drawings of the technical systems in buildings, and they will be knowledgeable of the costs of such technology. They will understand the issues involved in installing technical systems in buildings on a work site.

*Content*

- Symbols used in the drawings for technical systems in buildings
- Costs of technical systems in buildings
- Consideration of technical systems in buildings on the work site

*Literature / Study Material*  
As indicated by the lecturer.

*Learning Methods*  
Lectures and assignments

*Assessment*

- Assignments
- Final exam

*Prerequisites*

- Introduction to Heating, Plumbing and Ventilation
- Electrical and Automation Technology I

*Languages of Instruction*  
Finnish

## **PROFESSIONAL STUDIES, 89 op KC05BR20 (study entity)**

The purpose of the Professional Studies is to develop students' professional qualifications, which entails the understanding of information and skills and being able to apply them in practice. Students generally begin taking courses in the Professional Studies Module in their second year of study.

## **Entrepreneurship, 18 op KC05BR200 (study entity)**

This module familiarises students with construction and entrepreneurship in general and with the various areas of entrepreneurship, e.g. human resources management and project management, in more detail.

## **Human resources management, 4 op KC05BR20001 (study unit)**

*Lecturers*  
Ilkka Loukola, MSc (Eng.)

*Objectives*  
Students will be familiar with the issues involved in supervising people and managing operations. Upon completion of the course, students will be competent in using various organisational models and creative methods and be aware of various styles of leadership.

*Content*

- Organisations
- Skills in leadership and management
- Styles of leadership
- Occupational psychology
- Human resources management
- Students' leadership profile
- Creativity

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and assignments

*Assessment*

- Active participation in lessons
- Exam

*Languages of Instruction*

Finnish

**Project leadership, 4 op  
KC05BR20002 (study unit)**

*Lecturers*

Ilkka Loukola, MSc (Eng.)

*Objectives*

Students will be familiar with the process involved in a construction project and the issues pertaining to construction contracts. Upon completion of the course, students will be competent in making a project plan, sub-contracting agreement and the documents pertaining to construction.

*Content*

- Parties involved in a construction project
- Preliminary planning and planning of a project
- Building design
- Preparing for building
- Construction stage
- Contracts for the various stages in a construction project
- General terms of agreement (YSE 1998)
- Meetings and documents
- Duties of the principle designer
- Issues involved in property sales
- Terms of purchase and delivery of construction materials (RYHT 2000)

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and exercises

*Assessment*

Approved exercises and final exam

*Languages of Instruction*

Finnish

**Business economics, 3 op  
KC05BR20003 (study unit)**

*Lecturers*

Marita Viljanmaa, MSc (Eng.)

*Objectives*

Students will be familiar with the foundations of running a business. Upon completion of the course, students will be competent in establishing their own business and be familiar with the activities in a business. They will know how to

make budgets and calculate investments.

#### *Content*

- Choosing an appropriate type of company
- Establishing a company
- Activities in a business: production, financial administration and marketing
- Internal accounting, taxation and company finances

#### *Literature / Study Material*

As indicated by the lecturer.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

- Approved assignment
- Final exam

#### *Languages of Instruction*

Finnish

### **Construction economics, 4 op KC05BR20004 (study unit)**

#### *Lecturers*

Ilkka Loukola, MSc (Eng.)

#### *Objectives*

Students will be competent in making offer calculations, and they will be familiar with the principles for designing a construction site. Upon completion of the course, students will know how to make simple offer calculations, an area plan for a construction site and schedules.

#### *Content*

- Nomenclature systems
- Quantity surveying and pricing
- Costs of construction services
- Offer calculations
- Production planning
- Schedules
- General planning of a construction site
- Materials deliveries
- Financial planning
- Monitoring and control

#### *Literature / Study Material*

As indicated by the lecturer.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

- Approved assignments
- Final exam

#### *Languages of Instruction*

Finnish and English (if necessary)

### **Cost control, 3 op KC05BR20005 (study unit)**

#### *Lecturers*

Ilkka Loukola, MSc (Eng.)

### *Objectives*

Students will understand the significance of cost control in carrying out a construction project. Upon completion of the course, students will be competent in calculating the target price for a project and the extent of a project and in estimating the need for building components. They will be capable of controlling project costs.

### *Content*

- Calculating target price and extent of a project
- Estimating need for building components
- Use of TAKU software
- Cost control

### *Literature / Study Material*

- Talonrakennuksen kustannustieto
- Material distributed by the teacher

### *Learning Methods*

Lectures and exercises/calculations

### *Assessment*

- Approved exercises/calculations
- Final exam

### *Languages of Instruction*

Finnish

## **Heating and Plumbing Engineering, 11 op KC05BR201 (study entity)**

Students will be introduced to the heating, plumbing and sewage technology and systems in buildings.

## **Heating engineering, 4 op KC05BR20101 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be competent in dimensioning and choosing appropriate heat distribution networks and heat producing devices for different types of buildings based on temperature conditions, overall economics and the impact on the environment.

### *Content*

- Measuring power requirements
- Choosing and dimensioning heaters
- Designing and dimensioning networks
- Choosing and dimensioning thermal stabilizers and warning devices
- Choosing pumps and control valves

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Approved assignments and final exam

### *Prerequisites*

Introduction to Heating, Plumbing and Ventilation Technology

### *Languages of Instruction*

Finnish

## Heating systems, 3 op KC05BR20102 (study unit)

### *Lecturers*

To be announced.

### *Objectives*

Students will be familiar with various types of fuels and the burning process. They will be competent in measuring district heat and dimensioning heat distribution centres. Students will understand the possibilities heating systems that utilise renewable energy offer in the production of energy.

### *Content*

- Different heating systems
- Heat-retaining systems
- Renewable heating systems
- Theory of burning
- Boilers for fixed fuels

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Languages of Instruction*

Finnish

## Plumbing engineering, 4 op KC05BR20103 (study unit)

### *Lecturers*

To be announced.

### *Objectives*

Students will be familiar with water management and the demands it places on the water and sewage equipment in buildings. They will be competent in measuring piping and calibrating devices for a building.

### *Content*

- Activities carried out in the water and sewage plants
- Regulations and how to apply them in practice
- Measuring piping and calibrating devices
- Solutions pertaining to fire and sound in wastewater systems in buildings
- Materials and equipment
- Processing wastewater in sparsely populated areas

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

Introduction to Heating, Plumbing and Ventilation

### *Languages of Instruction*

Finnish

## **Ventilation and Cooling Engineering, 12 op KC05BR202 (study entity)**

Students will become familiar with the ventilation systems and technology in buildings.

### **Ventilation engineering, 5 op KC05BR20201 (study unit)**

#### *Lecturers*

To be announced.

#### *Objectives*

Students will acquire the knowledge and skills they need to be able to determine appropriate indoor climate and to measure air flow based on strain. They will become familiar with air distribution and exit air devices, air channels and channel system devices. Students will acquire skills in determining ventilation terminals and calibrating channels, fans and control devices.

#### *Content*

- Air quality and need for air ventilation
- Factors influencing ventilation strain and calculating them
- Calibration/measurement programmes
- Measuring air flow
- Air distribution and choosing terminals
- Designing channel systems and measurement
- Fans

#### *Literature / Study Material*

To be announced.

#### *Learning Methods*

Lectures and calculations

#### *Assessment*

- Approved exercises
- Final exam

#### *Prerequisites*

- Introduction to Heating, Plumbing and Ventilation Technology
- Indoor Climate

#### *Languages of Instruction*

Finnish

### **Ventilation systems, 3 op KC05BR20202 (study unit)**

#### *Lecturers*

To be announced.

#### *Objectives*

Students will become familiar with ventilation machines as a whole and the associated components. They will be competent in choosing and calibrating machine components for ventilation systems and in designing such systems according to fire safety regulations.

#### *Content*

- Properties of humid air
- Mollier Diagram
- IMS systems
- Choosing and calibrating machine components
- SFP numbers
- Fire safety regulations
- Industrial ventilation processes
- Frequency variables in ventilation

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and calculations

*Assessment*

- Approved exercises
- Final exam

*Prerequisites*

Ventilation Technology

*Languages of Instruction*

Finnish

## **Cooling engineering, 4 op KC05BR20203 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will be familiar with the blower cooling process and be competent in choosing appropriate refrigerants and components. They will be aware of the impact calibration has on the cooling power and energy consumption.

*Content*

- Cooling process
- Refrigerants and regulations
- Calculating the need for cooling
- Choosing a compressor and measuring piping
- Free cooling
- Condensing heat recovery
- Cooling systems for business premises and industry

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and calculations

*Assessment*

- Approved exercises
- Final exam

*Prerequisites*

Air-flow and Heat Transmission Technology

*Languages of Instruction*

Finnish

## **Energy Technology, 7 op KC05BR203 (study entity)**

The purpose of the Energy Efficiency Module is to teach students to consider the energy efficiency and needs of a building and to understand impacts the use of energy in buildings has on the environment. Upon completion of the module, students will be competent in assessing the energy efficiency of buildings and understand the impacts building technology and the associated components have on the energy efficiency and indoor climate. They will be familiar with the possibilities heating systems that make use of renewable energy sources offer in the production of energy.

## **Energy efficiency in building construction, 3 op KC05BR20301 (study unit)**

*Lecturers*

Marita Viljanmaa, MSc (Eng.)

Study Descriptions



### *Objectives*

Students will be familiar with the amount of heat needed in buildings and the factors affecting energy consumption. They will know how to determine these factors according to building regulations C3, C4, D2 and D5. Students will also know the impacts the energy efficiency directive and the building regulation, section D3, have on them.

### *Content*

- Energy efficiency directives
- Minimising energy consumption, trends, shadowing, heat retention, operating time
- Calculating energy consumption
- Computer simulation
- Life-cycle frame of mind
- Environmental impacts

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and calculations

### *Assessment*

- Approved assignments
- Final exam

### *Languages of Instruction*

Finnish

## **Indoor air climate, 2 op KC05BR20302 (study unit)**

### *Lecturers*

Jorma Tuomisto, MSc (Eng.)

### *Objectives*

Students will acquire comprehensive understanding of the significance and practices of building "clean". They will be aware of the factors threatening the health of the users of the building, the maintenance staff and renovator.

### *Content*

- Desired values for indoor climate
- Building for sensitive people
- Controlling moisture in construction, damage caused by moisture and microbes, vaporizing organic compounds, dust, asbestos, radon
- Emissions classifications for construction materials and classification of cleanliness for ventilation products
- "Clean" construction and classification of cleanliness, defining cleanliness and cleaning, cleaning IV systems
- Surveying the cleanliness of indoor air, measuring the amount of moisture and drying techniques
- Eliminating odours
- Impacts of tearing down old constructions on one's health and protecting oneself

### *Literature / Study Material*

- RT 07–10946 Sisäilmastoluokitus 2008
- Asumisterveysopas, Ministry of Social Affairs and Health 2008
- RT 07–10805 & RT 07–10832 Terveen talon toteutuksen kriteerit
- Criteria and guidelines for building facilities and homes
- Other material distributed by the lecturer

### *Learning Methods*

Lectures and seminar presentation

### *Assessment*

- Seminar presentation
- Exam

### *Languages of Instruction*

Finnish

## **HVAC in agricultural construction, 2 op KC05BR20303 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be familiar with the alternatives and requirements pertaining to ventilation in animal shelters. They will be competent in calculating the need for ventilation and heating in a production facility. They will also be familiar with the requirements for water management in a agricultural facility.

### *Content*

- Heat production of farm animals
- Fans, types of flues and wall panels
- Automation of ventilation systems
- Even-pressure ventilation
- Screen walls
- Dealing with sewage on a farm

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and calculations

### *Assessment*

Approved calculations/exercises

### *Languages of Instruction*

Finnish

## **HVAC and Measuring, 11 op KC05BR204 (study entity)**

The module familiarises students with the calibration of heating, plumbing and ventilation devices as well as sound technology. They will also learn about repairing heating, plumbing and ventilation systems.

## **Sound engineering, 2 op KC05BR20401 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will become familiar with noise prevention and sound insulation and sound muffling when designing and installing heating, plumbing and ventilation systems.

### *Content*

- Demands relating to sound in a building
- Impact of calibration on the level of noise
- Ways to muffle out sound
- Measuring the level of noise

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and calculations

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

Introduction to Physics

*Languages of Instruction*

Finnish

**HVAC in renovation, 2 op  
KC05BR20402 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will be knowledgeable of the stages and organisation of renovation projects for heating, plumbing and ventilation technology. They will know the estimated lifespan of the materials and equipment used and the typical types of damage they may have. Students will also be familiar with the procedures for fixing piping and ventilation systems.

*Content*

- Lifespan of heating, plumbing and ventilation equipment
- Procedures for fixing piping and ventilation systems
- Stages in a renovation project
- Announcements
- Issues pertaining to space
- Conversion flexibility

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and calculations

*Assessment*

Approved exercises/calculations

*Languages of Instruction*

Finnish

**HVAC measuring, 3 op  
KC05BR20403 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will be competent in using various calibration methods to determine the properties of heating, plumbing and ventilation systems in practical conditions. They will be aware of the possibility for errors in calibration, and they will know how to use calibration standards.

*Content*

- Portable calibration devices
- Basic adjustments to IV and piping networks
- Functional tests and strain
- Energy reports
- Utilising construction automation

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and exercises

*Assessment*

Approved exercises and final exam

*Prerequisites*

Laboratory work pertaining to heating, plumbing and ventilation

*Languages of Instruction*

Finnish

## **HVAC laboratory works, 2 op KC05BR20404 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be competent in calibrating phenomena associated with heating, plumbing and ventilation processes. They will be familiar with calibrating methods and devices and acquiring information, and they will be capable of reporting calibration results.

### *Content*

- Measuring temperatures, humidity, air quality, draught, and flow of pressure in the laboratory
- Visits to a production development laboratory

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Approved exercises and final exam

### *Prerequisites*

Air-flow and Heat Transmission Technology

### *Languages of Instruction*

Finnish

## **Air tightness tests, 2 op KC05BR20405 (study unit)**

### *Lecturers*

Veli Autio, BSc (Eng.)

### *Objectives*

Students will be familiar with the regulations pertaining to hermetic sealing in buildings according to building regulation C3. They will understand the impact the sealing of couplings and ducts has on the hermetic sealing of buildings and parts of buildings.

### *Content*

- Hermetic sealing
- Command of measuring devices
- Assuring the sealing of ducts
- Using infrared cameras

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

Introduction to Physics

### *Languages of Instruction*

Finnish

## **Project Studies of HVAC, 15 op KC05BR205 (study entity)**

Project Studies in heating, plumbing and ventilation provide students with the readiness they need to work on designing teams in project management and in supervising others, as well as in making offer calculations and cost estimates. The studies also guide students in creative problem solving and information acquisition and the application of these skills in communicating with others. Students work independently and in groups in heating, plumbing and ventilation projects being carried out in related companies or organisations. More detailed information about the Project Studies is available in the Project Studies Manual.

## **Building construction, 15 op KC05BR206 (study entity)**

The purpose of the Building Technology Modules is to familiarise students with the building technology needed in building new buildings and renovating old ones. Students will also learn about structural physics and construction design.

## **Building construction, 4 op KC05BR20601 (study unit)**

### *Lecturers*

Ilkka Loukola, MSc (Eng.)

### *Objectives*

Students will be familiar with the various possible practices involved in building technology, the structural and material alternatives for those practices, how they work and the technical features.

### *Content*

- Ground structures: fillers, drying foundations and lots, frost protection, surface structures
- Foundations and base floor structures
- Frame structures: wood, concrete, masonry, steel
- Supplementary structures: non-load-bearing structures, windows, doors, fixtures, roofs and facades
- Custom structures: air-raid shelters

### *Literature / Study Material*

- Building Information Index (assigned parts)
- Suomen rakentamismääräyskokoelma RakMK
- Other material as indicated by the lecturer

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Approved assignments
- Final exam

### *Prerequisites*

Introduction to Construction

### *Languages of Instruction*

Finnish

## **Renovation, 4 op KC05BR20602 (study unit)**

### *Lecturers*

Marita Viljanmaa, MSc (Eng.)

### *Objectives*

Students will be aware of the more common ways construction materials deteriorate as well as the types of damage in building components. They will also be familiar with the methods for fixing damage.

### *Content*

- Reasons behind the need to fix structures/renovate and the development of structures

- Strain and deterioration of construction materials
- Demolition
- Typical damage to foundations, frames and enclosing structures, reasons for the damage and methods to fix the damage
- Fixing/renovating various premises

*Literature / Study Material*

Material distributed by the teacher.

*Learning Methods*

Lectures and exercises

*Assessment*

Approved exercises and final exam

*Prerequisites*

Building Construction

*Languages of Instruction*

Finnish

## **Construction physics, 5 op KC05BR20603 (study unit)**

*Lecturers*

Marita Viljanmaa, MSc

*Objectives*

Students will be familiar with the structural physics of various structures and they will acquire basic knowledge and skills in correctly designing functioning structures and building components in the construction of new buildings and the renovation of old ones according to the laws of structural physics. Upon completion of the course, students will have the qualifications in structural physics required of structural designers according to RakMK A2, once they have acquired 2–years experience.

*Content*

- Principles of structural physics
- Air pressure and air flow in buildings
- Transferring heat and moisture
- Drying structures
- Sound insulation
- Indoor air and comfort
- Planning heat, moisture and sound insulation and the associated structural solutions
- Structural physical measurements

*Literature / Study Material*

- Rafnet material
- RakMK C1–C5
- Building Information Index
- Software and manuals

*Learning Methods*

- Lectures
- Assignments
- Structural physical measurements

*Assessment*

Two mid–term tests or one final exam and assignments

*Prerequisites*

Introduction to Construction Students should have most of the courses in Physics completed.

*Languages of Instruction*

Finnish

## **Structural Engineering, 15 op KC05BR207 (study entity)**

The purpose of the Structural Design Module is to provide students with the knowledge and skills they need to structurally design and build concrete, wooden, steel and masonry structures and buildings while taking into consideration the requirements of production techniques. Special attention is given to the designing practices set forth in the Eurocodes.

## **FREE CHOICE STUDIES, 10 op KC05DR30 (study entity)**

Students are encouraged to choose elective studies from the other modules in the Degree Programme in Construction Engineering and the elective studies in the degree programme, as well as from the other faculties in Seinäjoki UAS, other universities of applied sciences and academic universities. Students choose courses available in Seinäjoki UAS's Course Register, which contains all of the elective courses for all faculties. The course(s) students choose should further their professional knowledge and skills. Students then register for the course and study in the faculty from which the course was chosen.

## **Concrete structures and masonry structures 1, 5 op KC05BR20701 (study unit)**

### *Lecturers*

Martti Perälä, LSc (Tech.)

### *Objectives*

Students will be competent in measuring the more common un-reinforced concrete structures, reinforced concrete structures and masonry. They will understand how the structures in question behave when burdened. They will also be able to utilise information technology to measure the structures in question.

### *Content*

- Classification of concrete structures and associated documents
- Basics in designing: strengths of materials, stress categorisation, burden and magnitudes of force
- Measuring beams, one-way slabs, columns, walls and ground-supported footing at the ultimate limit state
- Anchoring reinforcements and extensions, local impression force
- Measuring service limit states
- Structural guidelines: reinforcement and structural components
- Drawings for reinforcements
- Measuring masonry
- Programmes for designing

### *Literature / Study Material*

- Eurocodes for designing concrete structures and masonry and national documents concerning application
- Other material provided by the teacher

### *Learning Methods*

- Lectures
- Calculations
- Homework
- Designing assignment
- Laboratory tests on structure

### *Assessment*

- Approved homework
- Designing assignment
- Tests
- Final exam

### *Prerequisites*

- Concrete engineering
- Statics
- Strength of materials
- Frame Systems
- Introduction to Structural Design

*Languages of Instruction*  
Finnish

## **CAD Continuation Course, 3 op KC05DR30001 (study unit)**

*Lecturers*  
Marita Viljanmaa, MSc

*Objectives*  
Students will reinforce their knowledge and skills in CAD. Upon completion of the course, Students will be competent in utilising CAD software in a diverse number of ways in creating and modelling structural drawings.

*Content*

- Details
- Libraries
- 3D functions

*Literature / Study Material*  
Material distributed by the teacher

*Learning Methods*

- Lectures
- Work on the computer
- Exercises

*Assessment*  
Approved exercises

*Prerequisites*  
CAD for Constructing Buildings

*Languages of Instruction*  
Finnish

## **Timber structures 1, 5 op KC05BR20702 (study unit)**

*Lecturers*  
Heikki Ylihärsilä, LSc (Tech.)

*Objectives*  
Students will be competent in independently designing and dimensioning common load-bearing wooden structures. They will know how to determine the static model of the structures and strain and be competent in making load combinations to be examined at the ultimate strain limit and the service limit. Students will consider the distinctive properties of wood when dimensioning load-bearing wooden structures. The course is part of the theoretical training required of A-level structural designers.

*Content*

- Properties of materials
- Structural designing of load-bearing wooden structures
- Static models of structures and strain
- Massive beams, columns, glued, thin-grooved beams, double tapered beams and single tapered beams, wooden trusses
- Measuring the normal force and the force of bending and cutting and combined load at the breaking point
- Fire design
- Measuring the service limit for bending and vibration
- Utilising software in designing and dimensioning wooden structures

*Literature / Study Material*

- Eurocodes for designing wooden structures and national documents for applying the Eurocodes as applies
- Manuals for the designing and dimensioning programmes
- Other material as indicated by the lecturer



### *Learning Methods*

- Lectures
- Designing assignments
- Test loads for structures

### *Assessment*

- Two mid-terms or one final exam
- Designing assignments
- Test loads for structures

### *Prerequisites*

- Introduction to frame systems and Structural Design
- Theory of Materials
- Statics
- Strength of Materials

### *Languages of Instruction*

Finnish

## **Materials of HVAC technology, 2 op KC05DR30002 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be familiar with the materials used in heating, plumbing and ventilation, the way the materials are produced and the properties pertaining to their use. They will also be familiar with the lifespan of the materials and the ways in which they become damaged.

### *Content*

- Quality requirements
- Ways of working with materials
- Corrosion
- Materials to use when renovating heating, plumbing and ventilation sites

### *Literature / Study Material*

- Building Information Register as applies
- Material distributed by the teacher

### *Learning Methods*

- Lectures
- Seminars

### *Assessment*

- Seminar work
- Final exam

### *Languages of Instruction*

Finnish

## **Steel structures 1, 5 op KC05BR20703 (study unit)**

### *Lecturers*

Martti Perälä, LSc

### *Objectives*

Students will be competent in independently designing and measuring common load-bearing steel structures. They will know how to determine the static model of the structures and strain and be competent in making load combinations to be examined at the ultimate strain limit and the service limit. Students will consider the distinctive properties of wood when

dimensioning load-bearing wooden structures. The course is part of the theoretical training required of A-level structural designers. The key areas of expertise acquired in the course include:

- Steel as a construction material (the more significant properties as regards construction)
- Cross-section categories and what they mean
- Measuring a bent structure (bending durability of a cross-section)
- Measuring a compressed and bent structure for distortional buckling
- Designing a tubular girder lattice
- Measuring a single-layer frame
- Designing a hall building

### *Content*

- Steel as a construction material
- Principles of design
- Measuring structural components: tensile structures, bent structures (beams), compressed and bent structures (columns)
- Tubular girder lattice
- Frames
- Bracing structures
- Principles of fire design
- Fire protection
- Protection from corrosion
- Manufacturing and installation
- Quality assurance
- Utilising software in designing and measuring steel structures

### *Literature / Study Material*

- Eurocodes related to the designing of steel structures and the national documents on how to apply the codes
- Manuals for the designing and measuring programme: TRY: Teräsrakenne Oppimisympäristö (CD ROM)
- Hitsatut profiilit käsikirja (online publication)
- ESDEP material (online publication)
- Suositeltavat runkorakennedetailit (online publication)
- Teräsrakennetuotteet ja suositeltavat teräslajit (online publication)
- SSEDTA Teräs- ja liittorakenteiden suunnittelun koulutuspaketti (online publication)
- Teräs pohja- ja maarakentamisessa (online publication)
- Käsikirja–Ruostumattomien terästen käyttö kantavissa rakenteissa (manual)
- Stainless SteelCal (online publication)
- Measurement programmes for steel and composite structures
- Teräskirja/Metallinjalostajat ry
- Rautaruukin putkipalkkikäsikirja/Rautaruukki

### *Learning Methods*

- Lectures
- Calculations
- Homework
- Designing assignment
- Structure tests in the laboratory

### *Assessment*

- Approved homework
- Designing assignment
- Mid-term exams or one final exam

### *Prerequisites*

- Introduction to Frame Systems and Structural Design
- Theory of Materials
- Statics
- Strength of Materials

### *Languages of Instruction*

Finnish

## **Production Technology, 21 op KC05BR210 (study entity)**

The purpose of the Production Engineering Module is to further students' knowledge of the production of wood and concrete elements, log structures, steel structures, and other pre-fabricated components. They will also learn about how to plan and manage a construction site. The Production Engineering Module provides students with a foundation for working in a construction company or as a developer.

## **Building physics measuring, 3 op KC05DR30003 (study unit)**

### *Lecturers*

Veli Autio, BSc (Eng.)

### *Objectives*

Students will become familiar with the methods of measuring the physical aspects of a building and learn to use instruments for analysing the results they obtain.

### *Content*

- Measuring the air leakage of a building and analysis of the results
- Thermal imaging of a building and analysis of the results
- Measuring moisture in various materials
- Measuring sound in a building
- Other measurements associated with the condition of a building and analysis of the results

### *Literature / Study Material*

Material distributed by the teacher

### *Learning Methods*

- Lectures
- Exercises

### *Assessment*

- Exam
- Approved exercises

### *Languages of Instruction*

Finnish

## **Site engineering, 4 op KC05BR21001 (study unit)**

### *Lecturers*

Ilkka Loukola, MSc (Eng.)

### *Objectives*

Students will be familiar with the issues associated with working on a construction site. Upon completion of the course, students will be competent in making schedules and planning resources on computer and in calculating the costs related to the technology needed on construction sites.

### *Content*

- Calculating costs related to technology needed on construction sites
- Construction site plans
- Planning job projects
- Planning what procedures and practices to use
- Heating, plumbing, ventilation and electricity on a construction site
- Planning schedules and finances
- Project management software for construction projects

### *Literature / Study Material*

- Hannu Järvinen: Vastaavan työnjohtajan tarkastusluettelo
- Other material distributed by the teacher

*Learning Methods*  
Lectures and assignments

*Assessment*  
Approved assignments and final exam

*Prerequisites*  
Building Economics

*Languages of Instruction*  
Finnish

## **Structural Design, 21 op KC05BR208 (study entity)**

The purpose of the Structural Design Module is to further students' knowledge in structural design according to the Eurocodes and to teach them to utilise information technology in their designing work. The Structural Engineering and Structural Design Modules provide students with the readiness they need to measure the structures of a building independently and as the member of a team.

## **Prefabrication production, 2 op KC05BR21002 (study unit)**

*Lecturers*  
Arto Saariaho, BSc (Eng.)

*Objectives*  
Students will be familiar with the principles of manufacture of precast concrete. Upon completion of the course, students will be competent in considering the factors affecting the production and installation of precast concrete. They will also be knowledgeable of the manufacture of concrete and wood elements.

*Content*

- Factory manufacturing of houses made of wood and prefabricated concrete elements
- Factors to consider when designing and manufacturing wood and prefabricated concrete elements

*Literature / Study Material*

- Eero Laitinen: Teollinen betonirakentaminen
- Material distributed by the teacher

*Learning Methods*  
Lectures and exercises

*Assessment*

- Approved exercises
- Final exam

*Languages of Instruction*  
Finnish

## **PRACTICAL TRAINING, 30 op KC05ER40 (study entity)**

Practical training provides students with the opportunity to work in their chosen profession under the supervision of an expert. Students expand their knowledge and become familiar with the profession while applying the knowledge they have learned during their studies into practice. The faculty's Guidelines for Practical Training contains more detailed information about the practical training period(s).

## **Workshop technology, 3 op KC05BR21003 (study unit)**

*Lecturers*  
Kari Saaranen and Timo Rinnasto

### *Objectives*

Students will be familiar with workshop production and the drawings involved in it. Upon completion of the course, students will be competent in making and reading production drawings for steel construction. They will also be knowledgeable of the principles of workshop production and quality control.

### *Content*

- Workshop drawings
- Production drawings and documents
- Production of steel structures
- Welding methods
- Quality control
- Surface treatment techniques
- Logistics

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Approved exercises and final exam

### *Languages of Instruction*

Finnish

## **Concrete structures 2, 3 op KC05BR20801 (study unit)**

### *Lecturers*

Arto Saariaho, BSc (Eng.)

### *Objectives*

Students will advance their knowledge and skills in the designing of concrete structures.

### *Content*

- Measuring column footing, two-way slabs, column slabs, fundamentals and ground slabs at the ultimate limit state
- Flow line theory of slabs
- Designing of strained concrete structures and how they behave
- Precast concrete structures

### *Literature / Study Material*

- Eurocodes for designing concrete structures and masonry and national documents concerning application
- Other material provided by the teacher

### *Learning Methods*

- Lectures
- Calculations
- Design work

### *Assessment*

- Approved calculations
- Approved design exercises
- Exam

### *Prerequisites*

Concrete Structures and Masonry I

### *Languages of Instruction*

Finnish

## **Log construction, 2 op KC05BR21004 (study unit)**

### *Lecturers*

Arto Saariaho, BSc (Eng.)

### *Objectives*

Students will understand the principles of building with logs. Upon completion of the course, students will be competent in designing log buildings, understand the issues involved in log production, and they will be aware of the changes that take place in logs over time when they design log structures and build with logs.

### *Content*

- Common ways to produce and work with logs
- Other structures associated with log structures
- Designing a log building
- Main principles associated with structural function and erecting log structures

### *Literature / Study Material*

To be announced during lectures.

### *Learning Methods*

Lectures and exercises

### *Assessment*

- Approved exercises
- Final exam

### *Languages of Instruction*

Finnish and English (if necessary)

## **FINAL THESIS, 15 op KC05FR50 (study entity)**

The thesis prepares students for their future profession. It enables students to apply the knowledge they have learned during their studies into practice and to find new knowledge to solve problems. More detailed information about the thesis is available in the Guidelines for Writing a Thesis.

## **Construction quality, 2 op KC05BR21005 (study unit)**

### *Lecturers*

Ilkka Loukola, MSc (Eng.)

### *Objectives*

Students will be familiar with quality control systems and know how to apply them to construction projects. Upon completion of the course, students will understand the quality control system of a construction company, be competent in designing a quality control plan for a construction site and for individual tasks.

### *Content*

- ISO 9000 Quality Control Standards
- Quality control procedures in industry and construction companies
- Quality control plans for construction sites and individual tasks on the construction site

### *Literature / Study Material*

Material distributed by the lecturer.

### *Learning Methods*

- Lectures
- Assignments
- Seminars

### *Assessment*

- Seminar

- Assignments
- Exam

### *Prerequisites*

Building Economics

### *Languages of Instruction*

Finnish

## **Steel structures 2, 3 op KC05BR20802 (study unit)**

### *Lecturers*

Martti Perälä, LSc (Tech.)

### *Objectives*

Upon completion of the course, students will be competent in independently dimensioning screw couplings and welded joints. They will be familiar with the theory of plasticity and be capable of applying their knowledge in the calculation of cross-sectional capacity. They will also be capable of determining the strain of simple structures. The course is part of the theoretical training required of A-level structural designers. The key areas of expertise acquired in the course include:

- Strain on joints
- Cutting stability of screws
- Edge pressure durability
- Fracture durability of a component
- Durability of a welded joint
- Principles of the plasticity theory

### *Content*

- Screws, nuts, washers
- Statically strained joints
- Categorisation of joints based on rigidity and strength
- Durability of screw couplings
- Durability of fillet welds based on stress components and a simplified method
- Impact of the length of a joint on durability
- Welding symbols
- Quality levels of welding
- Durability of welded joints
- Degree of utilisation of a weld
- Joint applications
- Connections between beams and columns
- Beam extensions and connections with crossing beams
- Column extensions
- Joining columns to foundations
- Extensions of the flanges on a truss
- Joining a truss to a column
- Joining ties
- Principles of plasticity
- Using software to dimension joints

### *Literature / Study Material*

See the literature/study material for the Steel Structures I course.

### *Learning Methods*

- Lectures
- Calculations
- Homework
- Experiments with structures in the laboratory

### *Assessment*

- Approved homework
- Mid-term exams or final exam

*Prerequisites*  
Steel Structures I

*Languages of Instruction*  
Finnish

## **Labor legislation and protection, 3 op KC05BR21006 (study unit)**

*Lecturers*  
Ilkka Loukola, MSc (Eng.)

*Objectives*  
Students will be familiar with the content of labour legislation and collective labour agreements. Upon completion of the course, students will understand the labour legislation needed in the working world and the collective labour agreements for employees in construction. Students will also be familiar with labour protection associated with construction.

### *Content*

- Collective Agreement Act
- Working Hours Act
- Annual Holidays Act
- Field-related collective labour agreements and labour protection

### *Literature / Study Material*

- Lecturer's material
- Collective labour agreement for the field of construction

*Learning Methods*  
Lectures and assignments

### *Assessment*

- Final exam
- Test to receive a occupational safety qualifications card

*Languages of Instruction*  
Finnish

## **Timber structures 2, 3 op KC05BR20803 (study unit)**

*Lecturers*  
Arto Saariaho, BSc (Eng.)

*Objectives*  
Upon completion of the course, students will be competent in independently dimensioning joints in wooden structures that are assembled with mechanic couplers. They will be familiar with the principles behind the dimensioning of heavy-duty wooden structures. The course is part of the theoretical training required of A-level structural designers.

### *Content*

- Joints in wooden structures
- Joints assembled with mechanical couplers: connections with nails, screws, bolts, and pegs
- Dimensioning spiked coupler plaes
- Heavy-duty wooden structures
- Utilising software in dimensioning joints

### *Literature / Study Material*

- Eurocodes for designing wooden structures and national documents for applying the codes
- Manuals for using designing and dimensioning programmes
- Other material distributed by the teacher

### *Learning Methods*

- Lectures



- Designing exercises
- Experiments with strain on structures

*Assessment*

- Exam
- Designing exercises
- Experiments with strain on structures

*Prerequisites*

Wooden Structures I

*Languages of Instruction*

Finnish

**Tender calculation, 5 op  
KC05BR21007 (study unit)**

*Lecturers*

Ilkka Loukola, MSc (Eng.)

*Objectives*

Students will be competent in making offers in reply to a request for an offer.

*Content*

- Calculations pertaining to the construction job using the nomenclature system
- Quantity calculations and pricing
- Costs for construction management duties and jobs around the site
- Schedules
- General planning of a construction site
- Creating an offer

*Literature / Study Material*

Material distributed by the lecturer.

*Learning Methods*

Assignment

*Assessment*

Assignment

*Prerequisites*

Building Economics

*Languages of Instruction*

Finnish

**Composite structures, 3 op  
KC05BR20804 (study unit)**

*Lecturers*

Martti Perälä, LSc (Tech.)

*Objectives*

Students will be competent in calibrating the more common reinforced concrete composite structures.

*Content*

- Basics of the functions and ways to measure composite structures (columns, beams, slabs) and the places where they can be used
- Familiarisation with the programmes used to measure composite structures

*Literature / Study Material*

- Eurocodes related to composite structures
- Other material distributed by the lecturer

*Learning Methods*

- Lectures
- Calculations
- Homework

*Assessment*

- Approved homework
- Mid-term tests or final exam

*Prerequisites*

- Concrete Structures I
- Steel Structures I

*Languages of Instruction*

Finnish

## **Project Studies of Production Technology, 15 op KC05BR211 (study entity)**

The Project Studies for Production Engineering in Building Technology provide students with the readiness they need to manage various construction projects, supervise various related activities, and to make offers and cost calculations. Project Studies also develop students' problem-solving skills, information acquisition skills and their ability to communicate and work with others. Students do their Project Studies together with companies and other organisations in the field of construction – they either work alone with the company/organisation or in a group. Students are encouraged to choose projects, which involve work on construction sites. Additionally, students may choose elective projects involving the construction of a new building or the renovation of an old one:

- Construction site
- fer calculations
- Steel construction site
- Log construction site
- Construction element factory
- Engineering shop
- Cost planning
- Building
- Research and product development

The number of credits students receive for the project depend on how extensive the project is; each case is considered separately. More detailed information about the Project Studies is available in the Project Studies Guidebook.

## **Computer aided constructional design, 4 op KC05BR20805 (study unit)**

*Lecturers*

Martti Perälä and Timo Rinnasto

*Objectives*

Students will be familiar with and competent in using the Tekla Structures and Robot Millennium software to analyse and measure structures and structural components.

*Content*

Introduction of and guidance in using computer-aided programmes for structural design.

*Literature / Study Material*

Software and instruction manuals

*Learning Methods*

- Work with software
- Computer exercises

*Assessment*

- Approved test using software
- Approved exercises

### *Prerequisites*

Basic courses in structural design

### *Languages of Instruction*

Finnish

## **Structural design of frame, 5 op KC05BR20806 (study unit)**

### *Lecturers*

Heikki Ylihärsilä, LSc (Tech.)

### *Objectives*

Students will become familiar with the structural designing process and the tasks involved in it as regards load-bearing frames.

### *Content*

Students will choose construction material and design a load-bearing frame system based on the construction drawings of an architect. They will consider the burden placed on the frame and the frame's static shape as well as the strut of the frame. They will do structural calculations for the frame's structural parts and familiarise themselves with the different types of structures and their structural physics (dampness, heat, sound). Students will also make structural designs.

### *Literature / Study Material*

Material acquired previously during one's studies and appropriate additional material acquired independently

### *Learning Methods*

Learning by doing alone and in groups

### *Assessment*

Assessment is based on the planning assignment.

### *Prerequisites*

Students should have most of the courses in the Structural Engineering Module and Structural Designing Module completed.

### *Languages of Instruction*

Finnish

## **Project Studies of Structural Design, 15 op KC05BR209 (study entity)**

The Project Studies for Structural Designing in Building Technology provide students with the readiness they need to plan structural designing projects for building technology as a member of a project team. Project Studies also develop students' problem-solving skills, information acquisition skills and their ability to communicate and work with others. Students do their Project Studies together with companies and other organisations in the field of construction. The projects may involve building a new building or renovating an old one: housing, public buildings, office and business premises, research and product development. The number of credits students receive for the project depend on how extensive the project is; each case is considered separately. It is recommended that students partake in at least two projects; one which is extensive and one which is less extensive. More detailed information about the Project Studies is available in the Project Studies Guidebook. Structural Design Project Lecturer(s)

- Heikki Ylihärsilä, LSc (Tech.)
- Martti Perälä, LSc (Tech.)

### *Objectives*

- Students will develop their knowledge and skills in structural design, group work, creativity, problem-solving and information acquisition. They will utilise information technology in structural design and acquire general skills needed in working in the working world.

### *Content*

- Students will acquire practical experience in structurally designing a new building or renovating an old one and/or research and development and product development.

### *Literature/Study material*

- Students search for information related to the project they are in.

### Learning methods

- Students do their Project Studies together with companies and other organisations in the field of construction. They engage in problem-based learning and learning by doing.

### Assesment

- Achievement of the project goals

### Prerequisites

- Students should have most of the courses in the Structural Engineering and Structural Design Modules completed.

# Degree Programme in Cultural Management (In Finnish)

## SPECIALISATIONS

Media Management  
Socio-cultural Work (Music)

## QUALIFICATION AWARDED

Bachelor of Culture and Arts

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Teaching in the Degree Programme in Cultural Management involves project-based learning whereby it prepares students for the working world as early as the first year of study. Individual courses are integrated into larger productions. The teacher functions as the students' mentor helping them throughout their entire academic career to achieve the goals they have set for their professional career.

A variety of teaching methods are used in the programmes to support students' professional development, readiness for the working world and professional expertise. Students work in small groups, listen to lectures by experts, visit companies in the field, do assignments, work in projects and obtain practical experience in real work environments.

The Basic Studies are common to all students regardless of line of specialisation. They introduce students to the foundations of studies in production, language studies and develop students' social skills.

Teaching in the Professional Studies for the Line of Specialisation in Media Management concentrates on media technology, project management and media production skills and other related expertise.

Teaching in the Professional Studies for the Line of Specialisation in Socio-cultural Work concentrates on the theoretical framework of socio-cultural work, methods for fostering creativity, and the organisation of music events.

Practical training (45 credits) in the working world is also a part of the programme. Students also choose 15 credits of elective courses and do a final thesis (15 credits). The Degree Programme in Cultural Management has strong international networks, which offer students the opportunity to study or do their practical training abroad.

## PROFILE OF THE PROGRAMME

Courses in the programme are primarily held in Frami (in Seinäjoki Technology Centre). However, the local centre for rhythm music, Rytmikorjaamo, is also used as a learning environment where the Degree Programme in Cultural Management has its own teaching facilities. The Kulttuubi web TV is also used as a learning environment in addition to the other teaching facilities. Students have the opportunity to do their compulsory practical training with Kulttuubi's productions.

### *Track alternatives*

The Line of Specialisation in Socio-cultural Work places emphasis on the use of music. Collaboration is strongly emphasised in the programme. Students graduating from this programme receive qualifications as counsellors and project managers in youth work, culture, social work and recreation work. Students will also have the readiness they need to work in demanding duties pertaining to the production of a musical event.

The courses in the Line of Specialisation in Media Management are similar to those in the degree programmes in communications in other universities of applied sciences. Students graduating from Seinäjoki UAS's Line of Specialisation in Media Management may work in production companies, as entrepreneurs, in the public service media and as production managers of contract productions.

### *Objectives*

The Line of Specialisation in Socio-cultural Work produces modern experts of culture and collaboration. Teaching encourages students to find ways to create a sense of community and empower others through music. Students will be competent in working as managers of development projects, e.g. village development projects. Students also become familiar with how to organise a musical event and acquire competence as producers of musical events.

Teaching in the Line of Specialisation in Media Management produces experts who know how to analyse, plan, develop and execute media productions that utilise electronic media. Upon completion of the studies, students will be familiar with the possibilities and limitations of different elements of media. They will possess the knowledge and skills needed to create commercially profitable productions.

## KEY LEARNING OUTCOMES

*Study programme—specific competencies*

*Study Programme in Cultural Management Description of the field of know-how*

A Bachelor of Culture and Arts

- \* is familiar with the culture's operational environment
- \* is familiar with current trends in culture, different areas of culture and the historical background of those trends.
- \* is able to recognise and analyse cultural phenomena and one's own relation to them
- \* perceives the professional field in cultural management and is capable of following it on the levels of media, research and prevailing conversation
- \* is familiar with the structures of cultural administration and politics and knows how to work in those areas
- \* comprehends how the public, third, business and entrepreneurial sectors of society function and is able to perceive the essential areas of their future development.
- \* knows how to analyse and develop one's own professional identity as a cultural manager
- \* has commercial know-how in cultural management
- \* masters field-related financial planning, budgeting and monitoring of finances and is familiar with the related legislation
- \* masters the planning and implementation of funding for a cultural product
- \* masters the principles of marketing and communications from the point of view of cultural management
- \* is familiar with the commercially profitable productisation in business associated with creativity management of production processes
- \* is capable of creating multi-industry networks and organising and managing production processes in the branch of culture
- \* is familiar with the stages of project planning, organisation and implementation
- \* is familiar with the legal issues pertaining to cultural management and knows how to apply legislation to production activities
- \* masters the communications and media skills needed in the field
- \* is familiar with the foundations of performance, production and media technology and has the ability to apply that knowledge in production activities.
- \* is able to examine and develop the various phases of the production process

## OCCUPATIONAL PROFILES

Cultural Managers work in various areas of cultural management in the public, private and third sectors. The essence of productivity lies in project management proficiency, excellent social skills, and the understanding of the profit-generation concept. The programme provides students with a general overview of the fields of culture and media and the professional know-how needed to work in demanding job positions that call for expert knowledge, e.g. large cultural events or film production.

## ACCESS TO FURTHER STUDIES

Students may apply to complete their master's degree in the field of Cultural Management (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at KUTU 2009METU and KUTU 2009SOKU.

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

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Student counsellor: Ms Tuija Huusko, tel. +358 40 830 4227, e-mail: tuija.huusko@seamk.fi

## Degree Programme in Cultural Management (In Finnish) (1.9.2009) KUTU 2009METU (Media Management)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KH13APE	<b>GENERAL STUDIES</b>					<b>41</b>
KH13APE1551	Information technology	x				3
KH13APE1342	Professional growth	x				5
KH13APE1410	Native language and communication	x				5
KH13SMV2550	Introduction to group work	x				3
KH13PHP1050	Customer service		x			3
KH13PHT0300	Cultural policy			x		3
KH13PHP0200	Introduction to project management	x				3
KH13PHT0050	Introduction to information and publicity	x				3
KH13PHP1150	Introduction to marketing		x			4
KH13MLK1130	Entrepreneurship				x	3
KH13APEKO	<b>Language studies</b>					<b>6</b>
KH13APE0541	English	x				3
KH13APE0542	Swedish			x		3
KH13AMOP	<b>PROFESSIONAL STUDIES</b>					<b>88</b>
KH13NKE	<b>Media technology</b>					<b>47</b>
KH13NKE0010	Introduction to new media		x			6
KH13NKE0011	Multi camera production		x			6
KH13NKE0100	Programming languages and their properties in electronic media			x		3
KH13NKE0110	Introduction to AV production	x				8
KH13NKE0050	Digital image processing	x				5
KH13NKE0060	DVD workshop	x				3
KH13NKE0070	Online animation workshop		x			3
KH13NKE0150	Introduction to 3-D animation		x			3
KH13NKE0160	Sound	x				6
KH13NKE0170	Introduction to media technology		x			4
KH13PT	<b>Producer's qualifications or project managementtd&gt;</b>					<b>24</b>
KH13PHP2050	Introduction to accounting			x		3
KH13PHT0401	Tools for a producer I	x				5
KH13PHT0402	Tools for a producer II		x			4
KH13PHT0410	Legislation and copyright law in AV productions	x				4
KH13PHT0411	Financing mechanisms of media productions	x				3
KH13PHT0420	New media project management			x		5
KH13MSK	<b>Content production qualifications</b>					<b>17</b>
KH13MSK0150	Introduction to screenwriting 1	x				5
KH13MSK0151	Introduction to screenwriting 2			x		3
KH13SMK0160	History of film	x				3
KH13MSK0060	Film analysis			x		3
KH13MSK0170	Introduction to non-linear plannig		x			3
KH13BSY	<b>ADVANCED STUDIES</b>					<b>36</b>
KH13MLK1210	Production I	x				7

KH13MLK1170	Production II		x			6
KH13MLK1180	Production III			x		8
KH13MLK1191	Production IV			x		6
KH13MLK1200	Production V				x	5
KH13MLK1120	Thesis writing clinic			x		4
KH13A4	<b>FREE CHOICE STUDIES</b>					<b>15</b>
KH13STK0650	<b>PRACTICAL TRAINING</b>					<b>45</b>
KH13STK0551	Practical training I		x			20
KH13STK0651	Practical training II				x	25
KH13TJK0450	<b>FINAL THESIS</b>					<b>15</b>

## Degree Programme in Cultural Management (In Finnish) (1.9.2009) KUTU 2009SOKU (Socio-Cultural Work)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KH13APE	<b>GENERAL STUDIES</b>					<b>38</b>
KH13APE1551	Information technology	x				3
KH13APE1342	Professional growth	x				5
KH13APE1410	Native language and communication	x				5
KH13SMV2550	Introduction to group work	x				3
KH13PHT0300	Cultural policy		x			3
KH13PHP0200	Introduction to project management	x				3
KH13PHT0050	Introduction to information and publicity	x				3
KH13PHP1150	Introduction to marketing		x			4
KH13MLK1130	Entrepreneurship				x	3
KH13APEKO	<b>Language studies</b>					<b>6</b>
KH13APE0541	English		x			3
KH13APE0542	Swedish			x		3
KH13AMOP	<b>PROFESSIONAL STUDIES</b>					<b>85</b>
KH13STT	<b>Fundamentals of socio-cultural work</b>					<b>14</b>
KH13BKE1050	Historical and theoretical foundations of socio-cultural work	x				3
KH13BKE1150	Civil activity	x				3
KH13BKE1252	Introduction to social pedagogics	x				2
KH13BKE1253	Introduction to motivation pedagogics	x				3
KH13BKE1451	Music as a culture		x			3
KH13SMV	<b>Methods and creative activity study module</b>					<b>47</b>
KH13SMV2553	Instrument studies	x				7
KH13SMV2659	Working in a band	x				5
KH13SMV3052	Ohjaustaitojen opintokokonaisuus	x				16
KH13SMV2853	Music education	x				5
KH13SMV2852	Music therapy			x		3



KH13SMV2952	Dance and music exercise		x			3
KH13DVV2021	Music theory and ear training 1/3		x			2
KH13SMV3150	Composition, lyrics, arrangement		x			6
KH13PTATU	<b>Project studies: study module of event production</b>					<b>24</b>
KH13PTATU01	Copyright and contract law	x				3
KH13PHP2050	Introduction to accounting			x		3
KH13PHP0650	Project financing		x			4
KH13PTATU02	Basics of event management	x				5
KH13PHP2550	Sponsorship	x				3
KH13PHP2651	Event budgeting	x				3
KH13PHP2750	Introduction to production technology		x			3
KH13BSY	<b>ADVANCED STUDIES</b>					<b>37</b>
KH13STK0553	Production 1: Music event	x				5
KH13STK0655	Production 2: Sociocultural event			x		6
KH13STK0751	Production 3: Musical		x			7
KH13STK0853	Production 4: Independent production				x	15
KH13MLK1120	Thesis writing clinic			x		4
KH13A4	<b>FREE CHOICE STUDIES</b>					<b>20</b>
KH13STK0651	<b>PRACTICAL TRAINING</b>					<b>45</b>
KH13STK0554	Practical training I		x			20
KH13STK0653	Practical training II				x	25
KH13TJK0450	<b>FINAL THESIS</b>					<b>15</b>

## Study Descriptions

### GENERAL STUDIES, 38 op KH13APE (study entity)

Basic Studies introduce students to the university of applied sciences as a learning environment and provide them with an overview of their future profession. Students acquire basic professional skills, improve their skills in their native language and foreign languages, as well as in information technology. Basic Studies also include elective courses, such as music for those students specializing in music.

### Information technology, 3 op KH13APE1551 (study unit)

#### Lecturers

- Esa Leikkari, MA (information technology, 2 cr)
- Leena Elenius, MA (information acquisition, 1 cr)

#### Objectives

- Information acquisition for Cultural Management (1 cr): Upon completion of the course, students will know how to use Seinäjoki UAS's library services and know the essential sources of information used in Cultural Management. They will have command of basic information acquisition techniques and know how to apply their knowledge to find the information they need.
- Information technology (2 cr): Students will be adept in using the computer as a tool, and they will have command of the principles of information technology and word processing.

#### Content

- Library and information services at Seinäjoki UAS
- Information in Cultural Management and producers of information

- Databases and how to utilise them
- Online information acquisition
- Information technology: equipment, e-mail, graphics programmes

#### *Literature / Study Material*

To be announced later.

#### *Learning Methods*

- Lectures
- Discussion
- Group and pair work
- Assignments

#### *Assessment*

- Assignments
- Active participation
- Pass/fail

#### *Further Information*

- esa.leikkari@seamk.fi
- leena.elenius@seamk.fi

### **Professional growth, 5 op KH13APE1342 (study unit)**

#### *Lecturers*

- Jussi Kareinen, MA
- Tuija Huusko, MA (Edu.)

#### *Objectives*

The aim of the course is to develop the students' own professional identity, to enable them to express concerns about their studies and to pose questions about their studies and refine their study plan. The purpose is also to strengthen the students' ability to complete their studies on time, to develop means to control stress, and to compile a portfolio throughout the course. Students will learn to assess their own skills and to acquire an entrepreneurial way of working.

#### *Content*

The following themes are evident throughout the course and do not follow a rigid structure. They will be dealt with as they arise. In this way, the course becomes a process. **THE SKILLS OF LEARNING, LEARNING TO LEARN:** Students outline their learning styles and strategies, learn more effective styles of learning, and identify their own learning difficulties. **SCHOOL AND STRESS MANAGEMENT:** Students learn to deal with stress, create common means to manage the daily chaos, and develop a sense of community. **PROFESSIONAL IDENTITY, PROFESSIONAL GROWTH:** Students develop their own professional identity and evaluate their progress in their studies from the perspective of professional growth. **COMPLETING STUDIES:** Students make a plan to assist them in completing their studies, identify their motivation, resources and energy for studying. **FUTURE, CAREER PLANNING AND WORKING LIFE:** Students make a plan for the future, consider placement in the working world, and create opportunities to express their own abilities to employers.

#### *Literature / Study Material*

To be announced at a later date.

#### *Learning Methods*

Discussions, interactive working methods: sociodrama, psychodrama, story theater, etc. Students will also compile a portfolio throughout the course.

#### *Assessment*

Pass/fail

#### *Further Information*

jussi.kareinen@seamk.fi tuija.huusko@seamk.fi

### **Native language and communication, 5 op KH13APE1410 (study unit)**

### *Lecturers*

Riikka Järvelä, MA

### *Objectives*

Students will be competent in writing various types of texts and understand in which context they can be used (written communication). They will also renew their view of themselves as communicators via constructive feedback and self-evaluation. Students will also acquire competence in interacting and analysing various contexts of communication, and understand central theories (oral communication). They will be able to identify the means of communication and their own role within a group. Students will take part in small-group communication, develop the ability to give feedback, become familiar with small-group communication theories, and possess the ability to use these in their studies and future careers (small-group communication).

### *Content*

- Written communication: Command of linguistic norms and the correct usage of the Finnish language, familiarisation with scientific and professional language and texts, process writing and the standards of scientific communication language
- Oral communication: Practical course concentrating on individual ways of communicating while renewing and analysing their view of themselves as communicators in public speaking situations. Central communication theories and models will be introduced during lectures.
- Small-group communication: Considers the behaviour of groups and one's own behaviour from a communicative perspective. Central theories will be discussed, as well as the practice and analysis of various group communication situations.

### *Literature / Study Material*

- Handouts to be distributed during the course
- Field-specific articles

### *Learning Methods*

- Lectures
- Discussion
- Assignments to be completed in class and at home
- Group work

### *Assessment*

Scale 1–5: 80 % attendance required. Assessment discussed during the first lesson. Sixty per cent of the grade is based on participation and assignments and 40 % is based on the exam.

## **Introduction to group work, 3 op KH13SMV2550 (study unit)**

### *Lecturers*

Johanna Kovanen media expert

### *Objectives*

Students will be placed in study groups, learn how groups function and become oriented into their studies.

### *Content*

- Orientation into studies
- Getting to know other people in the group
- Group organisation
- Membership in a group
- Principles for functioning in a group

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, independent and group assignments

### *Assessment*

Pass/Fail. Completion of the course requires active attendance in all lectures and acceptable completion of assignments.

### *Languages of Instruction*

Finnish

*Further Information*

johanna.kovanen@seamk.fi

## **Customer service, 3 op KH13PHP1050 (study unit)**

*Objectives*

Students will be familiar with the characteristics of marketing services. They will be competent in marketing services while considering the customer as part of the production and consumption process, as well as the development process of the quality of the service. Students will understand the role of marketing from the viewpoint of relational marketing.

*Content*

- Characteristics of services
- Customer as part of the production and consumption process
- Development of service quality
- Service situations and managing them
- Role of marketing services as a way to maintain customer relations
- Personal behaviour in customer service

*Literature / Study Material*

Pesonen H–L., Lehtonen J. & Toskala A. 2002. Asiakaspalvelu vuorovaikutuksena.

*Learning Methods*

- Lectures
- Assignments

*Assessment*

- Based on a scale of 1 to 5
- Active participation
- Assignments
- Exam

*Languages of Instruction*

Finnish and English

*Further Information*

The course involves some online studying.

## **Cultural policy, 3 op KH13PHT0300 (study unit)**

*Lecturers*

Arto Juurakko, MA

*Objectives*

Students will gain an overview of the structure and mechanisms of cultural policy.

*Content*

- Cultural policy and the structure of cultural administration in Finland
- Forms of governmental support
- Role of arts councils
- Significance of civil organisations, foundations and funds
- Nordic cultural policy and decision–making
- Nordic cultural organisations and institutions
- Role of the Nordic Council for Ministers in the cultural field
- Cultural policy in the EU
- Structure of the EU and decision–making in the field of media
- Organs and funds in the fields of culture and media

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

Lectures, assignments

### *Assessment*

1–5

## **Introduction to project management, 3 op KH13PHP0200 (study unit)**

### *Lecturers*

Aapo Jumppanen, PhD

### *Objectives*

Various projects are an essential part of today's working world. One of the primary objectives of this course is to familiarise students with the principles of project management and to develop their skills in applying for project financing. Students will learn about the essential concepts associated with projects, project innovation, planning and financing, as well as how to manage projects. Students will also be aware of the challenges involved in learning from projects. Upon completion of the course, students will possess a comprehensive understanding of project work and the opportunities it offers as well as of what it takes to carry out a project. Students will also understand how projects can be used as a pedagogic tool in studying in the field of Cultural Management.

### *Content*

- Familiarisation with basic concepts
- Creating a project plan
- Familiarisation with the fundamentals of project management

### *Literature / Study Material*

Silfverberg P. 2007. Ideasta Projektiksi – Projektinvetäjän käsikirja. Edita: Helsinki.

### *Learning Methods*

- Lectures
- Class assignments
- Home assignments
- Journal
- Compilation of a project plan

### *Assessment*

1–5

### *Languages of Instruction*

Finnish

### *Further Information*

jussi.kareinen@seamk.fi

## **Introduction to information and publicity, 3 op KH13PHT0050 (study unit)**

### *Lecturers*

Terttu Karhumaa, MSSc

### *Objectives*

The aim of the course is to explore the operation and significance of the mass media, and to provide students with an understanding of the special features involved in online communication and project publicity.

### *Content*

- Foundations of mass media
- Internal/external communication
- Compiling publicity plans
- Arranging press conferences
- Writing press releases

### *Literature / Study Material*

Material will be distributed during the first lesson.

### *Learning Methods*

Lectures, group work, field trips and book examination

### *Assessment*

1–5 (active participation and assignment)

## **Introduction to marketing, 4 op KH13PHP1150 (study unit)**

### *Lecturers*

Merja Juppo

### *Objectives*

- To understand the significance of marketing on business operations or other planned area
- To identify and utilise the competitive tools in marketing
- To be able to apply marketing-oriented ideas in planning

### *Content*

The course includes an introduction to marketing, negotiation skills, communication, advertising, product development and production for different media, auxiliary products, advertising based on images, brands, marketing a creative product, and sponsoring.

### *Literature / Study Material*

- Kotler P. 2000 (or later edition). Marketing Management: analysis, planning, implementation and control. (assigned sections)
- Anttila M. & Iltanen K. 1994 OR 2001. Markkinointi. (assigned sections)

### *Learning Methods*

- Lectures
- Assignments
- Exam

### *Assessment*

1–5: lectures (40 %), assignments (40 %) and active participation (20 %)

### *Languages of Instruction*

Finnish

## **Entrepreneurship, 3 op KH13MLK1130 (study unit)**

### *Lecturers*

To be announced at a later date.

### *Objectives*

Students will acquire basic knowledge of entrepreneurship and the ability to establish a business. They will understand the special features of entrepreneurship in the field of culture.

### *Content*

- Business ideas, entrepreneurship, innovations
- Profit generation model, business models
- Establishing a business
- Business development and financing
- Business growth and capital investors
- Finding and utilising risk financing
- Business strategies, value chains and networks

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, assignments, examination

### *Assessment*

1–5

*Prerequisites*

Introduction to Marketing

*Languages of Instruction*

Finnish

*Further Information*

jussi.kareinen@seamk.fi

**Language studies, 6 op  
KH13APEKO (study entity)**

Objectives:

- To achieve the level of proficiency in English and Swedish oral and written language skills necessary for working in the field of culture and for professional development.

**English, 3 op  
KH13APE0541 (study unit)**

*Lecturers*

Mari Heinonen, MA

*Objectives*

The aim of the course is to activate the necessary oral communication skills needed in the workplace, develop the courage to speak and to integrate professional terms into the students' active vocabulary. Eighty per cent attendance is required to complete the course.

*Content*

Students practise using English in their professional field through the following tasks:

- Compilation of field-specific vocabulary
- Reading field-specific texts
- Short oral presentation
- Competence in telling about oneself, one's education and the Finnish school system
- Job hunting and the associated documents
- Typical field-related letters and texts needed in the working world
- Procedures for meetings and negotiations and appropriate English for such situations

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

- Lectures
- Work in groups and independently
- Assignments in the network environment

*Assessment*

Grading is based on a scale of 1 to 5 and comprises the following parts:

- Command of professional language skills: vocabulary, reading assignment and presentation
- Independently written assignments
- Negotiation situation/Conference recording and evaluation of it
- Active participation

*Languages of Instruction*

English

*Further Information*

mari.heinonen@seamk.fi

**Swedish, 3 op  
KH13APE0542 (study unit)**

*Lecturers*

Jaana Store, MA

### *Objectives*

The aim of the course is to activate the necessary oral communication skills needed in the workplace, develop the courage to speak, and to integrate professional terms into the students' active vocabulary.

### *Content*

- Everyday phrases needed in the workplace as well as special vocabulary (ex. telephone language)
- Professional vocabulary development via various media and independent work
- Students' own CV
- Oral skills test carried out in pair and group discussions, as well as a written test

### *Literature / Study Material*

Material provided during the first lesson.

### *Learning Methods*

Lectures, work in groups and independently

### *Assessment*

1–5

### *Languages of Instruction*

Finnish and Swedish

## **Media technology, 47 op KH13NKE (study entity)**

Objectives: Upon completion of the module, students will possess basic knowledge of various elements of media. They will understand the type of expertise each tool needs from the point of view of the producer.

## **Historical and theoretical foundations of socio-cultural work, 3 op KH13BKE1050 (study unit)**

### *Lecturers*

Jari-Matti Lintala, MSc (Social Work)

### *Objectives*

Students will acquire a theoretical foundation of knowledge about the methods of creative activity.

### *Content*

- Traditions in socio-cultural work: tradition of co-operation and communal art
- Foundations of socio-cultural work: traditional, critical, radical
- Contents of socio-cultural work: Paulo Freire, Augusto Boal
- Approaches to socio-cultural work: traditional, critical, radical
- Phases involved in socio-cultural work
- Status of theory in socio-cultural work: research, analysis, concepts

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

- Lectures
- Journal
- Exam

### *Assessment*

1–5

### *Further Information*

jussi.kareinen@seamk.fi

## **Introduction to new media, 6 op KH13NKE0010 (study unit)**

### *Lecturers*

Esa Leikkari, MA



### *Objectives*

Students will learn about the history of the Internet, the production of web–pages, HTML language, backgrounds, frames, forms, linking pictures, publishing pages and advanced Internet tools.

### *Content*

- Basics of the Dreamweaver programme
- Creation of web–pages

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, assignment

### *Assessment*

1–5 (based on completed exercises, assignment and exam)

### *Further Information*

esa.leikkari@seamk.fi

## **Civil activity, 3 op KH13BKE1150 (study unit)**

### *Lecturers*

Jussi Kareinen, MA

### *Objectives*

Students will become familiar with the concepts and procedures involved in civic activities.

### *Content*

- Concepts associated with civic activity
- Societal transitions and individualization
- Structural and administrative changes and internationalisation
- Changes in the basis and forms of collective activity
- Future of voluntary work
- Professional aspects of work with organisations
- Organisations and associations at the side of the government
- Transition to a non–centralised society
- Transitions in the working society
- Values associated with civic activity: national duty or self–evident value
- Possible directions of development in civic activity
- Future challenges and familiarisation with procedures

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Lectures
- Group work
- Online learning in part
- Independent assignments
- Field trips

### *Assessment*

1–5: based on exam and active participation in lessons

### *Further Information*

jussi.kareinen@seamk.fi

## **Multi camera production, 6 op KH13NKE0011 (study unit)**

### *Lecturers*

- Jari Kivimäki

- Jukka Saarela

### *Objectives*

Students will be introduced to the work in a TV studio. They will learn about the various phases and roles involved in that work. At the end of the course, students will create a small-scale studio production.

### *Content*

Learning will take place in a multi-camera/recording studio. Students will be familiarised with the work processes of directors, lighting cameraman, TV recording engineer, video engineer and the entire multi-camera group.

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Assignments and small-group work

### *Assessment*

1–5

### *Prerequisites*

Introduction to Audiovisual Productions

### *Further Information*

jukka.saarela@seamk.fi

## **Introduction to social pedagogics, 2 op KH13BKE1252 (study unit)**

### *Lecturers*

Jari-Matti Lintala, Msc (Social Welfare)

### *Objectives*

Students will become familiar with social pedagogic activities and the thought behind social pedagogy in its varying, everyday contexts. Special emphasis is placed on the social sciences. Students will form a professional understanding of the social growth of an individual, the analysis of the entire social situation of an individual/group, and of the social environment of an individual/group.

### *Content*

- Foundations of social pedagogic activities, history of social pedagogic thought and the development of theory
- Social pedagogy as it relates to national cultures
- Nordic model for social pedagogic social work
- Social pedagogic practices as tools for today's socio-cultural work
- Future of social pedagogy in globalising Finland

### *Literature / Study Material*

- Hämäläinen, Juha & Kurki, Leena. 1997: Sosiaalipedagogiikka. Porvoo: WSOY.
- Hämäläinen, Juha. 1999. Johdatus sosiaalipedagogiikkaan. Kuopio: University of Kuopio.

### *Learning Methods*

Students will take a group exam (50 %) where they will process what they have learned during the course through co-operative learning methods (50 %).

### *Assessment*

1–5 Grading is based on how well students have understood the theoretical concepts of social pedagogy while working with their fellow students. Therefore, this requires active participation in the lessons.

### *Further Information*

jussi.kareinen@seamk.fi

## **Programming languages and their properties in electronic media, 3 op KH13NKE0100 (study unit)**

### *Lecturers*

Esa Leikkari, MA

### *Objectives*

Students will be introduced to online programming and the characteristics of various programming languages. They will practise making basic programming structures, become familiar with the basics of descriptive language and finished creations.

### *Content*

- Revision of the HTML descriptive language
- JavaScript
- Java applets
- CGI, PHP

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, assignments and exam

### *Assessment*

1–5 (based on completed assignments and exam)

### *Further Information*

esa.leikkari@seamk.fi

## **Introduction to motivation pedagogics, 3 op KH13BKE1253 (study unit)**

### *Lecturers*

Olli-Pekka Ahtiainen, MA (Edu.)

### *Objectives*

Students will develop an understanding of the theoretical foundation of socio-cultural community development and of how to apply it in practice. They will be familiar with the planning of the community development process and the roles of the community developer and the people involved in the development.

### *Content*

- Theoretical foundation of socio-cultural community development
- Other concepts related to socio-cultural community development, e.g. participation, empowerment, community
- Socio-cultural community development as a pedagogy of change
- Methods of socio-cultural community development
- Role of the socio-cultural community developer
- Cycle of the socio-cultural community development process
- Planning the socio-cultural community development process
- Challenges to socio-cultural community development

### *Literature / Study Material*

- Innostuskirja. NYT, Sosiokulttuurisen toiminnan polunpäitä. 2003. Opintokeskus Kansalaisfoorumi
- Kurki, Leena. 2000. Sosiokulttuurinen innostaminen. Vastapaino
- Innosta ja innostu. 1995. KEPA, online version: [http://www.kepa.fi/teemat/raportit/025\\_innostu\\_1.html](http://www.kepa.fi/teemat/raportit/025_innostu_1.html)
- Mitä on sosiokulttuurinen innostaminen? <http://www.ktolhanke.net/bmvmaterials/index/a-500.html#tpv1>
- Other material to be announced at the beginning of the course

### *Learning Methods*

- Active participation in the lectures and careful completion of assignments
- Discussion during lectures, group work, co-operative learning methods
- Reading groups
- Planning the community development process in pairs
- Independent reading assignments

### *Assessment*

1–5 Grading is primarily based on active participation during the lessons and completion of the given assignments.

### *Languages of Instruction*

Finnish

*Further Information*

olli-pekka.ahtiainen@aretai.org

**Introduction to AV production, 8 op  
KH13NKE0110 (study unit)**

*Lecturers*

- Heikki Ortamo
- Jukka Saarela

*Objectives*

Students will be introduced to the central tools and phases involved in audiovisual production. They will plan and implement a small-scale video production in groups.

*Content*

- Basics of video production
- Tools for producing videos
- Phases in producing a video
- Small-scale video production in groups
- Written exam

*Literature / Study Material*

- Pekka Korvenoja: TV-kameratyön perusteet
- Other material to be announced during the first lesson

*Learning Methods*

Lectures, exercises, small-scale project

*Assessment*

1–5

*Further Information*

jukka.saarela@seamk.fi

**Music as a culture, 3 op  
KH13BKE1451 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will be introduced to the traditions and practices of various music cultures.

*Content*

- Introduction to Western artistic music
- Introduction to popular music
- Introduction to folk music

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

- Lectures
- Music demonstrations
- Independent study

*Assessment*

1–5: exam

*Further Information*

arto.juurakko@seamk.fi

## **Digital image processing, 5 op KH13NKE0050 (study unit)**

### *Lecturers*

Mathias Roschier–Holmberg

### *Objectives*

Students will understand the possibilities involved in image processing for digital productions, and they will be capable of applying them to various formats.

### *Content*

- WWW image processing and recommended image formats
- Picture editing and picture manipulation

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, independent work

### *Assessment*

1–5

## **DVD workshop, 3 op KH13NKE0060 (study unit)**

### *Lecturers*

Esa Leikkari, MA

### *Objectives*

Students will become familiar with the stages of DVD productions and contribute to the production of a DVD. They will gain understanding of the properties of a DVD and the possibilities as a format of distribution.

### *Content*

- DVD format
- Stages of DVD production
- Familiarisation with a DVD production programme
- Making a DVD

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, exercises and assignment

### *Assessment*

1–5 (based on exercises and assignments)

### *Further Information*

esa.leikkari@seamk.fi

## **Instrument studies, 7 op KH13SMV2553 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will reinforce their ability to play their primary instrument, and they will learn to play at least one secondary instrument.

### *Content*

- Instrument–specific lessons
- Playing an instrument in a group

*Literature / Study Material*

To be distributed during the first lesson.

*Learning Methods*

- Lectures
- Group assignments
- Independent practice

*Assessment*

1–5

*Further Information*

annamari.sanaksenaho@seamk.fi

**Online animation workshop, 3 op  
KH13NKE0070 (study unit)**

*Objectives*

Students will learn about the possibilities animation and graphics offer in the creation of webpages. They will be introduced to animation techniques and practice making interactive animation and multimedia links.

*Content*

Basics of Macromedia Flash

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

Lectures and assignments

*Assessment*

1–5 The grade for the course comprises the combined grades for completed exercises and assignment.

**Working in a band, 5 op  
KH13SMV2659 (study unit)**

*Objectives*

Students will develop their ability to play an instrument together with others, and they will be familiarised with the various styles of rhythm music (rock, latin, jazz) and the periods of the styles. Students will acquire the experience needed to supervise bands comprising special groups. Students will also have the opportunity carry out their own creative music projects.

**Introduction to 3–D animation, 3 op  
KH13NKE0150 (study unit)**

*Objectives*

The aim of the course is to familiarise students with 3D animation. They will acquire the knowledge and skills needed in modelling and making animations.

*Content*

- Concepts in 3D modelling
- File formats and their conversion, illumination, rendering, animation, character animation, landscape modelling
- Hardware potential, 3D programs, special programmes, digital set design, plug-in programmes, motion capture, 3D scanning
- Areas of application for 3D modelling, post-production, planning 3D production, and the construction of spatial virtual environments

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

Lectures and assignments

*Assessment*

1–5

## **Ohjaustaitojen opintokokonaisuus, 16 op KH13SMV3052 (study unit)**

### *Lecturers*

- Me as a Counselor (3 cr): Esa Kakkuri, Annamari Sanaksenaho
- Group Counselling (3 cr) Esa Kakkuri, Minna Kansanaho
- Methods of Counselling (5 cr): Annamari Sanaksenaho, 5 workshop teachers to be announced
- One's Own Counselling Method and Counselling (5 cr): 5 workshop teachers, Annamari Sanaksenaho, Esa Kakkuri, Minna Kansanaho

### *Objectives*

- Me as a Counselor: Students will strengthen their self-awareness and the basis of their ability to counsel others. They will acquire the tools needed to increase self-awareness and interaction with others.
- Group Counselling: Students will become familiar with and know how to utilise group counselling techniques. They will be competent in taking special and challenging situations into account in their work.
- Methods of Counselling: Students will become familiar with various areas of the arts (literary art, music, visual art, theatre, dance), which they will use as the basis for choosing their own counselling method. They will understand the concept of interdisciplinary art and the significance of it as a tool for counselling.
- One's Own Counselling Method and Counselling: Students will become familiar with the methods of counselling in their chosen area of art. They will develop a clearer picture of their own individual and cultural counselling method and a view of socio-cultural empowerment in practice (in their own counselling).

### *Content*

- Me as a Counselor: Finding ways to become more self-aware and developing one's ability to counsel others.
- Group counselling: Getting familiar with the role of the counselor in various situations through demonstrations based on theory.
- Methods of Counselling: Supervised work in workshops (active participation)
- One's Own Counselling Method and Counselling: Students create and carry out demonstrations based on the methods for working in their chosen area of art (based on the theory of art as a socio-cultural method and innovator). Reflection upon one's own way of counselling.

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Co-operative learning
- Lectures
- Assignments

### *Assessment*

Pass/fail

### *Prerequisites*

- KH13BKE1050: Historical and Theoretical Foundations of Socio-cultural Work
- KH13BKE1252: Introduction to Social Pedagogy
- KH13BKE1253: Introduction to the Pedagogy of Empowerment

### *Further Information*

The course will be carried out in co-operation with the South Ostrobothnia Folk High School, and teaching will take place in the institution's facilities in Ilmajoki. Students must successfully complete all parts of the course to receive a final grade for the course. anna-mari.sanaksenaho@seamk.fi

## **Sound, 6 op KH13NKE0160 (study unit)**

### *Objectives*

Students will understand the concept of sound as an narrative element in audiovisual productions.

### *Content*

- Basics in field sound
- Basics in sound design
- Basics in the post-processing of sound

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

Lectures, exercises

*Assessment*

1–5

*Further Information*

The course will be integrated with the Introduction to Audiovisual Production course.

**Music education, 5 op  
KH13SMV2853 (study unit)**

*Lecturers*

Annamari Sanaksenaho

*Objectives*

Upon completion of the course, students will understand the possibilities to use music as a tool in education. The course also develops students' readiness to use music when working with various groups.

*Content*

The course provides students with a general picture of music education, its main trends and significance and status as regards the community and individual. Students will create workshops for the Rytmikylä tour, which involves teaching children in the province about rhythm music using empowering methods (1 cr). Students will also produce a musical intended for children.

*Literature / Study Material*

To be announced.

*Learning Methods*

- Lectures
- Supervised assignments

*Assessment*

1–5, which is based on active participation.

*Further Information*

annamari.sanaksenaho@seamk.fi

**Introduction to media technology, 4 op  
KH13NKE0170 (study unit)**

*Objectives*

Students will be familiar with the properties of various formats and understand the limitations of these formats. Students will also be able to apply their knowledge to their work.

*Content*

Students learn about the technical requirements needed to produce contents for various formats.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

- Lectures
- Lectures
- Assignments
- Exam

*Assessment*

1–5 To receive a grade for the course, students must actively participate in the lessons and successfully complete assignments.



## **Music therapy, 3 op KH13SMV2852 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be familiar with the basic concepts methods of music therapy and understand the therapeutic significance of music.

### *Content*

Areas where music therapy can be used.

### *Literature / Study Material*

To be distributed during the first lesson.

### *Learning Methods*

- Lectures
- Supervised assignments
- Group work

### *Assessment*

1–5, which is based on active participation.

### *Further Information*

arto.juurakko@seamk.fi

## **Producer's qualifications or project management24 op KH13PT (study entity)**

Objectives: Students will have command of the various parts of project work and upon completion of the module, they will possess the skills needed in successfully carrying out a project. They will be competent in utilising their skills in project work during their studies and during their practical training especially. Students will also acquire basic skills in digitally producing a video and carrying out a new-media project.

## **Dance and music exercise, 3 op KH13SMV2952 (study unit)**

### *Lecturers*

Noora Kolanen, dance teacher

### *Objectives*

Students will become familiar with dance and music as a way to express oneself and as a tool for exercise when working with groups.

### *Content*

- Bodily expression
- Expressive movement along with music
- Musical games and how to use them when working with groups

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Lectures
- Practice
- Journal

### *Assessment*

1–5, which is based on active participation in the lessons and completed assignments.

### *Further Information*

Head of Degree Programme Jussi Kareinen jussi.kareinen@seamk.fi

## **Introduction to accounting, 3 op KH13PHP2050 (study unit)**

### *Objectives*

The course introduces students to the foundations of accounting and financial statements and teaches students how to compile a balance sheet book.

### *Content*

- Accounting
- Reporting
- Financial statements

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

- Lectures
- Assignments
- Exam

### *Assessment*

1–5

## **Music theory and ear training 1/3, 2 op KH13DVV2021 (study unit)**

### *Lecturers*

Annamari Sanaksenaho

### *Objectives*

Upon completion of the course, students will be able to complete the first level of Music Theory and Ear Training and be competent in applying their skills and knowledge in practice.

### *Content*

The course involves discussion of the following topics:

- Keys C, G, F, D, B, a, e, d, h, g (parallel keys)
- Levels of pitch
- Names of notes and staves
- Time: 2/4 and 4/4
- Parts of notes and quantities (whole notes, half notes 1/4 notes, 1/8 notes, 1/16 notes, dotted 1/4 note) and breaks
- Signs
- Intervals
- Ways of marking chords (degree, quality, realisation)
- Transposition

### *Literature / Study Material*

- Valli, Leinonen: Perusaste 1. Musiikin teorian ja säveltäpailun oppijakso
- Lecturer's own material, for ex. Skaala, Lectio Sonorum

### *Learning Methods*

- Lectures: 2–4 h/week depending on how the course is divided (one or two semesters)
- Assignments
- Homework

### *Assessment*

Pass/fail: active participation in lessons and successful completion of assignments

### *Languages of Instruction*

Finnish

### *Further Information*

- Lectures on Thursdays 12:30 pm–14:00 pm or 14:15 pm–15:45 pm. In the event the course takes during during one semester, the lectures are on Thursdays 12:30 pm–15:45 pm.
- Place: Rytmikorjaamo

## **Tools for a producer I, 5 op KH13PHT0401 (study unit)**

### *Lecturers*

Petri Männistö, BVM

### *Objectives*

Upon completion of the course, students will be competent in compiling and presenting a production plan.

### *Content*

- Job description of a producer
- Pre-planning and developing a production, scheduling, budgeting, and post-production
- Programme placement, target groups and viewer surveys
- Broadcasting companies, independent production companies in Finland and abroad
- Sales and marketing
- Digital distribution network and regional programme windows
- Practices in TV production
- Breaking down a script into production costs
- Practising selling a topic and plan to a sponsor

### *Literature / Study Material*

Material will be distributed during the first lesson.

### *Learning Methods*

Lectures, assignments and exam

### *Assessment*

1–5: 50 % comprises the exam and 50 % the presentation of the production plan

### *Further Information*

jussi.kareinen@seamk.fi

## **Composition, lyrics, arrangement, 6 op KH13SMV3150 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will become familiar with the techniques needed to compose, write lyrics and adapt music in such a way that they are able to work out their own songs and counsel groups in the creation of music.

### *Content*

- Analysis of various styles of composition
- Composing, writing lyrics and adapting music for one's own songs with the help of an expert

### *Literature / Study Material*

To be distributed during the first lesson.

### *Learning Methods*

- Lectures
- Practice
- Independent study

### *Assessment*

1–5

### *Further Information*

annamari.sanaksenaho@seamk.fi

## **Tools for a producer II, 4 op KH13PHT0402 (study unit)**

### *Objectives*

Upon completion of the course, students will be competent in creating a production plan, which will enable them to carry out a media production based on the working world.

### *Content*

- A more advanced approach to the issues learned in Tools for Producers I course.
- Special emphasis on competence in financial administration (budgeting)

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, assignments, independent work and work in small groups

### *Assessment*

1–5

### *Prerequisites*

Tools for Producers I

### *Further Information*

jukka.saarela@seamk.fi

## **Legislation and copyright law in AV productions, 4 op KH13PHT0410 (study unit)**

### *Lecturers*

Jaakko Eskola

### *Objectives*

Students will understand the significance of making contracts and know how to create a contract template.

### *Content*

- Basic knowledge of labour legislation, contract law, communications legislation and copyrights, related rights and industrial rights
- Typical contracts in the audio–visual field, common contractual clauses, distribution contracts and financing contracts
- Legislation in Finland and the Nordic countries and contractual jurisprudence
- EU and other international legislation and contractual jurisprudence

### *Literature / Study Material*

To be announced during the first lesson.

### *Learning Methods*

Lectures, practical exercises, exam

### *Assessment*

1–5

## **Copyright and contract law, 3 op KH13PTATU01 (study unit)**

### *Lecturers*

Jaakko Eskola

### *Objectives*

Students will understand the significance of making contracts and know how to create a contract template.

### *Content*

- Basic knowledge of labour legislation, contractual law, communications legislation and copyrights, related rights and industrial rights

- Typical contracts in the audio–visual field and events production, common contractual clauses, distribution contracts and financing contracts
- Legislation in Finland and the Nordic countries and contractual jurisprudence
- EU and other international legislation and contractual jurisprudence

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

Lectures, assignments, exam

*Assessment*

1–5

*Languages of Instruction*

Finnish

*Further Information*

jaakko.eskola@opus.fi

## **Financing mechanisms of media productions, 3 op KH13PHT0411 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will be familiar with the channels for financing media productions and know how to compile an initial cost calculation for them.

*Content*

- Familiarisation with various sources of financing
- Production support (incl. script support and targeted funding for media arts)
- Risk management
- Project life span and financing
- Planning financing and creating a financing palette
- Application procedures

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

Lectures, assignments and work in small groups

*Assessment*

1–5

*Prerequisites*

Tools for Producers I–II

*Further Information*

Some of the teaching will take place online.

## **Project financing, 4 op KH13PHP0650 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will be competent in acquiring needed financing from the right sources.

*Content*

- Familiarisation with various sources of financing (EU, RAY)
- Risk management
- Life span of a project and financing

- Planning financing and creating a financing scheme
- Application process

*Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*

- Lectures
- Financing plan
- Compiling a financing application (group work)
- Guest lecturers

*Assessment*

1–5

*Prerequisites*

Introduction to Project Management

*Further Information*

jussi.kareinen@seamk.fi

## **New media project management, 5 op KH13PHT0420 (study unit)**

*Objectives*

Students will be competent in creating a new-media project.

*Content*

- Planning a new-media project
- Needs analyses
- Phases in implementation and documentation
- Various job descriptions
- Co-operation between various levels of the project
- Scheduling
- Risk management
- Characteristics of a new-media project
- Team work

*Literature / Study Material*

Material will be distributed during the first lesson.

*Learning Methods*

Lectures, assignments and compiling a project plan

*Assessment*

1–5

*Prerequisites*

- Introduction to Project Management
- Introduction to New Media
- Scriptwriting I

*Further Information*

esa.leikkari@seamk.fi

## **Basics of event management, 5 op KH13PTATU02 (study unit)**

*Lecturers*

Päivi Alaniska

*Objectives*

Upon completion of the course, students will possess a comprehensive understanding of the extra tasks, duties, networks and target groups involved in making a club production. Students will acquire a clear picture of club production and advanced knowledge in at least one area of the club production event. They will actively work on at least one project

team.

### *Content*

The essential themes involved in producing an event are discussed during the course. These include marketing, sales, financing, production, programmes, publicity, networking, and project management. The course involved the creation of a medium-sized club production. Students will apply what they have learned during the lecture and from the presented cases to a class event. The course is carried out in co-operation with Selmu ry.

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Lectures
- Work in small groups
- Use of Moodle

### *Assessment*

- Active participation in lectures
- Written assignments
- Journal

Grading is based on a scale of 1–5.

### *Languages of Instruction*

Finnish

### *Further Information*

paivi.alaniska@seamk.fi

## **Content production qualifications, 17 op KH13MSK (study entity)**

Objectives: Students will acquire basic knowledge of dramaturgy and visual design. They will understand the special requirements of producing content for various media. The History of Film and Film Analysis courses provide students with a framework in which to produce media content.

## **Sponsorship, 3 op KH13PHP2550 (study unit)**

### *Lecturers*

To be announced at a later date.

### *Objectives*

Upon completion of the course, students will understand the significance of the business community and know how to make an agreement for sponsorship.

### *Content*

- Significance of the business community
- Making agreements
- Preparing for visits to businesses

### *Learning Methods*

- Lectures
- Assignments (making agreements)
- Visits to businesses
- Guest lecturers

### *Assessment*

1–5

### *Prerequisites*

- Introduction to Marketing
- Introduction to Events Production

*Languages of Instruction*  
Finnish

*Further Information*  
jussi.kareinen@seamk.fi

**Introduction to screenwriting 1, 5 op**  
**KH13MSK0150 (study unit)**

*Objectives*

The course introduces students to screenwriting and they will acquire skills in analysing the strengths and weaknesses of scripts.

*Content*

- Introduction to classical drama
- Narrative conventions and traditions
- Characters, time, place, and conflicts
- Diagnosis of the strengths and weaknesses of a script

*Literature / Study Material*

To be announced at a later date.

*Learning Methods*

Lectures, assignments (writing a script), exam

*Assessment*

1–5

*Further Information*  
jukka.saarela@seamk.fi

**Event budgeting, 3 op**  
**KH13PHP2651 (study unit)**

*Lecturers*

To be announced at a later date.

*Objectives*

Students know how to plan and compile a production budget, which is based on a realistic picture of whether or not the production can be carried out.

*Content*

- Basics in budgeting
- Setting goals
- Follow-up
- Various types of budgets and budget systems

*Learning Methods*

- Lectures
- Work in small groups
- Moodle

*Assessment*

1–5

*Prerequisites*

Introduction to Events Production

*Further Information*  
jussi.kareinen@seamk.fi

**Introduction to screenwriting 2, 3 op**  
**KH13MSK0151 (study unit)**



### *Objectives*

The course introduces students to screenwriting and they will acquire skills in analysing the strengths and weaknesses of scripts.

### *Content*

- Revision of the classical drama studied in Screenwriting I
- Narrative conventions and traditions
- Characters, time, place, and conflicts
- Diagnosis of the strengths and weaknesses of a script
- Breaking a script down into production costs
- Familiarisation with the tools a screenwriter uses
- Innovation of new formats
- Practising synopses and production plans

### *Literature / Study Material*

To be announced at a later date.

### *Learning Methods*

Lectures, assignments (writing a script), exam

### *Assessment*

1–5

### *Prerequisites*

Screenwriting I

## **Introduction to production technology, 3 op KH13PHP2750 (study unit)**

### *Lecturers*

To be announced at a later date.

### *Objectives*

Students will acquire a deep understanding of how sound and lighting technology works, and they will be competent in evaluating the needs for the production technology of various events.

### *Content*

- Terminology associated with sound and lighting (e.g. units of measurement)
- Principles of sound and lighting technology

### *Learning Methods*

Lectures

### *Assessment*

1–5

### *Prerequisites*

Introduction to Events Production

## **History of film, 3 op KH13SMK0160 (study unit)**

### *Lecturers*

Jukka Saarela, MA

### *Objectives*

Students will become familiar with the history of film both from the ethical and commercial points of view. They will understand how the practices in film as a form of media have changed or become commonplace in different parts of the world throughout time. Students will also gain insight into how the various parts of technology for making a film have changed and how financial situations in production have shaped the making of films and film aesthetics.

### *Content*

- Familiarisation with the history of film in the Western world
- Command of the various styles of film, periods, genres and their historical development
- Concept of genre and the shaping of film into its current form in an economical and technological framework

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures, independent study, group work, watching films, and an exam

*Assessment*

- Exercise(40 %) and exam (60 %)
- Based on a scale of 1 to 5

**Film analysis, 3 op  
KH13MSK0060 (study unit)**

*Lecturers*

Jukka Saarela, MA

*Objectives*

Students will learn the basic concepts associated with film analysis and study the art of cinema. The course also includes the analysis and close reading of films.

*Content*

- Basic concepts and methods associated with film analysis
- Film as an art
- Close reading

*Literature / Study Material*

To be distributed during the first lesson.

*Learning Methods*

Lectures, independent study

*Assessment*

1–5

*Prerequisites*

History of Film

**Introduction to non–linear planning, 3 op  
KH13MSK0170 (study unit)**

*Objectives*

Upon completion of the course, students will possess skills in screenwriting for new media.

*Content*

The course discusses the features of non–linear narrative and the structures of interactive and non–linear narratives.

*Literature / Study Material*

To be distributed during the first lesson.

*Learning Methods*

Lectures, exercises, exam

*Assessment*

1–5

*Prerequisites*

Introduction to Screenwriting

*Further Information*

Course will be integrated with the New Media Project Management course (KH13PHT0420).

**Production 1: Music event, 5 op  
KH13STK0553 (study unit)**

*Lecturers*

Päivi Alaniska

Study Descriptions

### *Objectives*

Upon completion of the course, students will possess a comprehensive understanding of the work involved on teams and in projects. They will also possess practical experience in project management and internal communication. Additionally, students will acquire a clearer picture of the skills needed on their job-related team as well as of themselves as young producers.

### *Content*

Student groups will generate ideas, plan, execute and decide on their own club production. Each group will be divided up into a smaller group according to the job they have. During the lessons on production, the groups will apply the knowledge they learned while creating an event to the creation of their own event. Throughout the course, students will reflect upon their role on the team by writing about their experiences in a journal/project diary and reading field-related literature.

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Independent and supervised work in small groups
- Journal
- Final report

### *Assessment*

1–5 Grading is based on self- and peer evaluations as well as on the lecturer's evaluation.

### *Languages of Instruction*

Finnish

### *Further Information*

paivi.alaniska@seamk.fi

## **Production I, 7 op KH13MLK1210 (study unit)**

### *Objectives*

Students will acquire skills needed in working on a video production team, and become familiar with the entire concept of production.

### *Content*

Digital video production

### *Literature / Study Material*

To be announced later.

### *Learning Methods*

Lectures, exercises, presentation

### *Assessment*

1–5

### *Further Information*

jukka.saarela@seamk.fi

## **Production 2: Sociocultural event, 6 op KH13STK0655 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

The aim of the course is to familiarise students with the practices involved in socio-cultural productions. Upon completion of the course, students will be competent in producing an event based on an idea generated in their group. They will also be competent in functioning as facilitators for the event in question.

### *Content*

To be announced at the beginning of the course.

### *Learning Methods*

- Group work
- Independently supervising a group
- Field research

*Assessment*

1–5

*Prerequisites*

Completed Professional Studies

**Production II, 6 op  
KH13MLK1170 (study unit)**

*Objectives*

Students will become familiar with new media production as the member of a small group.

*Content*

Online production

*Literature / Study Material*

Material will be distributed during the first lesson.

*Learning Methods*

Supervised assignments

*Assessment*

1–5

**Production 3: Musical, 7 op  
KH13STK0751 (study unit)**

*Lecturers*

To be announced.

*Objectives*

Students will apply the skills and knowledge they have learned in the Event Production Module to the production of a musical.

*Content*

Students groups will produce and execute a musical under the supervision of an expert.

*Learning Methods*

- Group work under the supervision of a teacher
- Online learning

*Assessment*

1–5

*Prerequisites*

Event Production Module

**Production III, 8 op  
KH13MLK1180 (study unit)**

*Objectives*

Students will become familiar with the production of documentaries as the member of a team.

*Content*

Production of documentaries

*Literature / Study Material*

Material will be distributed at the beginning of the course.

*Learning Methods*

Supervised assignments

### *Assessment*

1–5

### *Prerequisites*

- Introduction to AV production
- Production I

## **Production 4: Independent production, 15 op KH13STK0853 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be competent in independently producing a production of their choice. They will be able to analyse the possible risks and threats that may arise in the planning phase of a production and to work accordingly. The production will be related to the working world.

### *Content*

The production may comprise 1–3 separate productions, which are worth from 5 to 15 credits. The production plan must be approved by the supervising lecturer in advance. The productions may be in the form of workshops concentrating on counselling within the framework of socio-cultural empowerment or productions of events or both.

### *Learning Methods*

- Independent study
- Active contact with the supervising lecturer
- Participation in production meetings (peer learning)

### *Assessment*

1–5 Evaluation is based on the production plan and final report (incl. self-evaluation). If a student wishes to make more than one production, then the final grade will be the average of all of the productions with consideration of the extensiveness of the productions.

### *Prerequisites*

Professional Studies

## **Production IV, 6 op KH13MLK1191 (study unit)**

### *Objectives*

Students will become familiar with Internet television and create a programme for the degree programme's own web TV or other web TVs.

### *Content*

Web TV production

### *Literature / Study Material*

Material will be distributed during the first lesson.

### *Learning Methods*

Supervised assignments

### *Assessment*

1–5

## **Production V, 5 op KH13MLK1200 (study unit)**

### *Objectives*

Students will produce a media production with an external client.

### *Content*

Assignment chosen by the student and commissioned by an external client

### *Literature / Study Material*

To be announced at a later date.

## *Learning Methods*

### Supervised assignments

## *Assessment*

### 1–5

## **Thesis writing clinic, 4 op KH13MLK1120 (study unit)**

## *Lecturers*

### Senior lecturers and field-specific lecturers

## *Objectives*

Students will generate various topics for projects and theses, which are of interest to them and which are related to their professional field, and choose the most appropriate ones to present in a field-related seminar. Students will outline their thesis writing process and gain competence in writing a thesis and presenting it. They will also learn how to work in seminars and familiarise themselves with the work of others. Information Acquisition in Cultural Management (1 cr): Upon completion of the course, students will be competent in identifying their information needs and classifying them. They will also know how to choose appropriate sources of information to satisfy each need for information. They will be competent in critically evaluating information and apply it to their research problem and assignment.

## *Content*

Choosing a thesis topic, planning the thesis writing process, checking the progress of the thesis process (incl. intermediate phases), participating in supervision, seminar work, functioning as an opponent:

- Specifying information needs
- Sources of information in cultural management
- Databases and how to use them
- Searching for information online
- Evaluating and applying information

## *Literature / Study Material*

- Vilkkä H. 2003. Toiminnallinen opinnäytetyö. Tammi
- Hirsjärvi, Remes and Sajavaara. 2004. Tutki ja kirjoita. Tammi

## *Learning Methods*

- Work/supervision in small groups
- Seminar work
- Independent study
- Tutoring

## *Assessment*

### Pass/fail

## *Further Information*

- jussi.kareinen@seamk.fi
- arto.juurakko@seamk.fi

## **FREE CHOICE STUDIES, 15 op KH13A4 (study entity)**

Students are entitled to choose elective courses from the UAS's entire range of courses. The courses are on the Intranet. In the Cultural Production Module, 2–5 credits worth of advanced elective courses in an area of a given degree programme may also be possible to complete. The courses in question are first and foremost intended for the degree programme's own students. The courses will be announced during the academic semesters. Projects related to the professional field may also be counted as elective courses, but they must be approved by the lecturer in advance.

## **PRACTICAL TRAINING, 45 op KH13STK0650 (study entity)**

- Course objectives and contents: Students will develop their personal qualifications in the various sub-sectors of the professional field, and plan, implement and report on a personal socio-cultural project independently.
- Learning methods: Independent work

## **Practical training I, 20 op KH13STK0551 (study unit)**

### *Lecturers*

- Esa Leikkari, MA
- Jukka Saarela, MA

### *Objectives*

Students will become familiar with field of media through practical training.

### *Content*

Supervised practical training in an approved workplace

### *Learning Methods*

Supervised training and online assignments

### *Assessment*

Pass/Fail

### *Further Information*

- esa.leikkari@seamk.fi
- jukka.saarela@seamk.fi

## **Practical training II, 25 op KH13STK0651 (study unit)**

### *Lecturers*

- Jukka Saarela, MA
- Esa Leikkari, MA

### *Objectives*

Students will apply the theory they have learned during their studies into practice, and carry out a project independently. The practical training can be integrated into the final thesis.

### *Content*

Supervised practical training in an approved workplace

### *Learning Methods*

Supervised practical training

### *Assessment*

Pass/fail

## **Practical training I, 20 op KH13STK0554 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

The primary goal in the first practical training period is to familiarise students with the field of cultural management and to reinforce students' professional identity. Students will make a plan for their practical training together with their training supervisor. The plan will contain the expected skills and knowledge the students will acquire during their practical training period.

### *Content*

Supervised practical training in a place agreed upon in advance

### *Assessment*

Pass/fail

### *Further Information*

jussi.kareinen@seamk.fi

## **FINAL THESIS, 15 op KH13TJK0450 (study entity)**

- Lecturer(s): Kari Salo, PhD, MSc, MA (Edu.)
- Objectives: To develop students' ability to express the knowledge they have acquired
- Content: Written study or collaborative project work
- Learning methods: Supervised training
- Assessment: Pass/fail

## **Practical training II, 25 op KH13STK0653 (study unit)**

### *Lecturers*

To be announced.

### *Objectives*

Students will be competent in working in the field of culture and advancing their professional expertise. They will be able to apply the knowledge they have learned during their studies to practice in the working world. Students will carry out a task pertaining to development during their practical training period.

### *Content*

Supervised practical training in a place agreed upon in advance.

### *Assessment*

Pass/fail

### *Prerequisites*

Practical Training I



# Degree Programme in Design (In Finnish)

## SPECIALISATIONS

Graphic design  
Lifestyle design  
Furniture design

## QUALIFICATION AWARDED

Bachelor of Culture and Arts

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

A variety of teaching methods are utilised in the degree programme, the most important of which is project work. Projects engage students in problem-based, investigative learning, which simulates life in the working world.

## PROFILE OF THE PROGRAMME

Beginning studies in the field of culture is a challenging endeavour. It calls for passion and an appreciation for culture, which is a learning process in itself. This is the essence of the fascination of culture as a profession.

Creative work is innovative when it has a goal. Work in the field of culture and education especially should be both creative and innovative. Guidance and career counselling provide students with sustainable support throughout their entire academic career, guiding them through their studies in the field of culture, elucidating the distinctive characteristics of the field, and encouraging students in their learning process.

The aim of the Degree Programme in Design is to prepare students for various duties in the field of design. Emphasis in the programme is placed on user-oriented design that places the wishes and needs of the user in the forefront. Students will have command of project-based, goal-oriented methods of working, and they will be competent in working on multi-professional teams. Students learn through hands-on projects that simulate life in the working world. They will become familiar with the professional practices in each area of specialisation. Students have the opportunity to work in well-equipped workshops during their studies and to complete some of their studies as exchange students in partner institutions abroad.

The Graphic Design line of specialisation provides students with the knowledge and skills they need to create and manage a business and product image. Teaching in the first part of the programme concentrates on developing students' basic skills in graphics and essential approaches needed to work in the field, such as the principles of designing and the use of computer programmes.

As their studies progress, students delve more deeply into the duties of a graphic designer through projects with various partners. Project partners include companies, associations and representatives of product design and marketing communications. During the projects, students gain extensive insight into the different perspectives of graphic design. At the end of the programme, students practise working as an independent professional. The aim is to prepare students to work in communities where one's professional knowledge and skill is just as important as interaction and the ability to collaborate.

As the name suggests, the Lifestyle Design line of specialisation concentrates on the design and visualisation of products and services that support different lifestyles. Future trends and being able to identify and cater to the needs of the consumer are an essential part of the designing process.

During course projects, students create brands around products and services accentuating experiences, generate visionary business and company concepts, and design entire collections. Students also practise the visualisation of various events together with events producers.

Some of the projects concentrate on concept design and others on the development of a prototype for a product or a complete product ready for manufacturing. Emphasis is placed on the design, production and co-ordination of products for fashion, living and leisure, which coincide with the concept of lifestyle. The creation of a product does not depend on the types of materials available; the aim is to provide students with opportunities to use various types of materials.

The Furniture Design line of specialisation provides students with solid knowledge and skills in the designing, manufacturing techniques, materials and marketing of furniture. Studying takes place in close co-operation with the working world. Students design consumer-oriented interior design and product concepts in projects with partner

companies. Some of the concepts are developed into products. Students participate in trade fairs by designing and constructing booths for the fairs and creating graphic material for marketing products.

We strive to support students' goals and traits significant to their growth into designing professionals. We also encourage students to gain international experience by completing some of their studies in an international environment.

## KEY LEARNING OUTCOMES

### *Competence in design*

A Bachelor of Culture and Arts

- \* has creative, problem-solving approaches to one's work.
- \* is able to foresee changes in the future and develop the work environment to encompass and withstand change.
- \* is able to reflect on acquired information and to apply it appropriately.
- \* understands field-related methods and ability to utilise appropriate tools.
- \* understands user-oriented design and the significance of ergonomics in products.
- \* understands and masters creative processes and field-related theory in one's work.
- \* understands the designer's ethical and aesthetical responsibilities.

### *Competence in production*

A Bachelor of Culture and Arts

- \* knows the essential materials used in the field and ability to use them appropriately.
- \* understands the essential manufacturing and production processes in the field.
- \* knows the production chain in the field.
- \* understands the significance of quality as an essential part of designing.

### *Competence in the designing process*

A Bachelor of Culture and Arts

- \* understands the cultural factors behind designing and ability to interpret the prevailing phenomena and values using various means of designing.
- \* is able to work in projects according to the procedures applied in project work.
- \* is able to present one's ideas and products in a communicative way.
- \* understands the significance of business and marketing in the designing process.
- \* understands the designing process and meanings of the product in the management of a business image.

### *Visual competence*

A Bachelor of Culture and Arts

- \* is able to perceive, use and assess colour and shapes and their proportions as a basis for designing.
- \* understands the significance of composition as a basis for designing.
- \* commands visual illustration techniques as part of the processes in designing.

## ACCESS TO FURTHER STUDIES

Students may apply to complete their master's degree in design (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at MK 2009 (1.9.2009), 240 cr.

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of the degree programme: Mr Hannu Ruokonen, tel. +358 40 830 4226, e-mail: hannu.ruokonen@seamk.fi  
ECTS departmental coordinator / International coordinator: Ms Eija Pennanen, tel. +358 40 830 4272, e-mail: eija.pennanen@seamk.fi  
Student counsellor: Ms Tuija Huusko, tel. +358 40 830 4227, e-mail: tuija.huusko@seamk.fi

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## Study Descriptions

### Orientation and career planning, 4 op KH14AAOR01 (study entity)

Lecturer(s): Designer Tuija Huusko MA (Edu.), Esa Savola MA, and experts from the working world  
 Objectives: Students will become familiar with the degree programme and what it offers as well as the educational environment (workshops and computer programmes). Students will get to know each other through various types of group work. The aim is also to get to know students from previous classes and those from other units in the field of culture. Students will learn to identify their own learning styles and how to reflect upon their own learning. They will understand the principles associated with group and team work and learn to work with others on multi-professional and international teams. During the course, students will think about their own career and choose relevant optional courses and practical training. Opportunities for international exchanges and practical training will also be discussed in the course. Discussions pertaining to students' learning goals and career planning will be held one a year. Preparation for practical training: Before their practical training, students will take field trips to familiarise them with various companies in the field of design; they will also read literature and work online (written reports). Students will learn customer service skills also. Experts from the working world will visit to tell about their profession, career development, and students will be able to interview professionals in their chosen profession. Students will discuss their career plans with their supervisor after which they will choose a place to do their practical training, which supports the development of their own career. Upon completion of the course, students will understand the phases of learning and know how to reflect on the knowledge and skills they have learned. They will be competent in sharing their knowledge and skills with others in a work community. They will also be able to evaluate their own expertise (SWOT analysis) and determine the areas that need improvement. Students will update their career and study plan on a yearly basis. Contents:

- Customer service in the field of design
- General knowledge of the working world and being an entrepreneur
- Opportunities to study abroad in the field of design
- Research and development (R&D) in the field of design
- Common professional practices and issues concerning employment relations: employee rights, responsibilities, legislation, collective labour agreements, employment contracts, wages and taxation, pension coverage, labour unions, freelance work
- SWOT analysis and current know-how
- SWOT analysis and the profession
- Job application assignment (marketing oneself and one's expertise)
- Job applications and portfolios

Literature: To be announced at the beginning of the course. Learning methods: Project learning similar to that of an entrepreneur  
 Assessment: pass/fail

### Communication studies, 10 op KH14AAKI (study entity)

Objectives: Students will possess diverse skills in communicating in their professional field. They will know how to produce written material in different languages for different situations. They will also be competent in situations of oral communication using field-related vocabulary. Students will be familiar with project reports and be able to write such reports. They will understand what process writing is and utilise it when writing their own texts.

### English, 3 op KH14AAKI01 (study unit)

#### *Objectives*

Students will strengthen and improve their language skills. They will be competent in using vocabulary common to their professional field both in writing and in speaking. Students will achieve a level of English needed in the design labour market. Upon completion of the course, students will be able to describe the type of education and work experience they have and the types of products they are selling. They will also be able to apply for jobs in English, know how to describe their place of employment, the services it offers and what precisely the business does. Students will also possess both written and oral skills needed in communication at the workplace.

#### *Content*

- Describing oneself and one's education
- Presentation of one's product both in writing and orally
- Applying for a job, compiling a CV
- Describing one's workplace and the duties there both in writing and orally
- Writing notices, memos, reports and/or summaries and electronic communication

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

- Oral exercises such as dialogues, group discussions and presentations
- Written assignments

### *Assessment*

- Active use of oral skills (incl. oral presentations and dialogue exercises)
- Completion of written assignments, portfolio
- All parts of the course must be approved to complete the course
- Grading based on a scale of 1 to 5

### *Prerequisites*

Command of the central structures of English

## **Swedish, 3 op KH14AAKI02 (study unit)**

### *Objectives*

Students will be competent in using Swedish in the designing labour market. They will be able to communicate with customers orally and in writing, as well as to acquire and utilise field-related information in Swedish. Students will have a positive attitude toward learning Swedish and a realistic understanding of their own skills. Upon completion of the course, students will know how to tell about themselves, their education and work experience. They will be competent in applying for a job in Swedish, present their own products, and use field-related vocabulary.

### *Content*

- Telling about oneself and one's education
- Applying for a job: interviews and CVs
- Describing one's job and presenting products
- Small-talk, phone conversations, meetings, expressing opinions and arguments to back those opinions
- Written communication: e-mails, summaries (eg. synopses, reports, notices)

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Oral exercises such as dialogues, group discussions and presentations, as well as written assignments

### *Assessment*

- Active use of oral skills (oral presentations and dialogue exercises)
- Completion of written assignments and exercises
- All parts of the course must be passed to complete the course
- Grading based on a scale of 1 to 5

### *Prerequisites*

Command of the central structures of Swedish

## **Communication, 4 op KH14AAKI03 (study unit)**

### *Lecturers*

Communications lecturer

### *Objectives*

The course is divided into two parts: Communications I (2 cr): Students will develop their communications skills with special emphasis on oral communication. Upon completion of the course, students will identify their own needs for improvement as regards future professional practices. Students will also differentiate between and identify the features of the texts they need in their, and they will become familiar with Seinäjoki UAS's guidelines for writing various texts. Communications II (2 cr): Students will practise writing reports about their product-making/designing processes. They will understand the principles of academic writing and know how to apply those principles to their own work. They will also become familiar with process writing and revise their language skills.

### *Content*

#### Communications I:

- Principles of oral presentation
- Various types of text
- Guidelines for writing texts

#### Communications II:

- Reporting
- Process writing
- Principles of academic texts
- Language maintenance

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, small-group work and meetings, independent assignments

### *Assessment*

Pass/fail

## **Entrepreneurship, 13 op KH14AAYT (study entity)**

Objectives: In the Business Operations Module, students will become familiar with the principles of business operations, cost calculation, marketing and contract jurisprudence.

## **Basics of economics, 2 op KH14AAYT01 (study unit)**

### *Lecturers*

Desinger Merja Juppo, BCD

### *Objectives*

Students will be familiar with the principles of pricing products and services, and they will acquire a realistic picture of cost accounting in a design company. Students will be competent in making offers and invoicing customers, and they will be familiar with the factors affecting pricing such as VAT, wages and associated expenses, material expenses, fixed costs, and write-offs from investments. They will also know how to calculate the need for financing when establishing a business and understand the significance of profit. Additionally, students will be competent in evaluating a company's economic situation using the more common parameters and analyses.

### *Content*

- Calculating contribution margins
- VAT
- Wages
- Investments and write-offs
- Need for financing
- Common parameters
- Sensitivity analysis
- Offers
- Invoicing

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, tests, online study and independent study

### *Assessment*

Grading based on a scale of 1 to 5

## **Marketing, 5 op KH14AAYT02 (study unit)**

### *Lecturers*

Designer Merja Juppo, BCD

### *Objectives*

Students will understand the connection between a company's marketing operations and product design, innovation and design as well as other areas of business. Students will be familiar with the process of making a product/service idea into a product from the point of view of marketing. They will be familiar with the principles behind consumer and purchasing behaviour and understand the significance of strategically planning marketing and know how to apply appropriate tools in the planning. Students will also be familiar with competitive tools and know how to use them. They will make a marketing plan for a design company.

### *Content*

- Calculating contribution margins
- VAT
- Wages
- Investments and write-offs
- Need for financing
- Common parameters
- Sensitivity analyses
- Offers
- Invoicing

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, tests, online study and independent study

### *Assessment*

Grading based on a scale of 1 to 5.

## **Introduction to entrepreneurship, 6 op KH14AAYT03 (study unit)**

### *Lecturers*

Designer Merja Juppo

### *Objectives*

Students will understand the connection between a company's marketing operations and product design, innovation and design as well as other areas of business. Students will be familiar with the process of making a product/service idea into a product from the point of view of marketing. They will be familiar with the principles behind consumer and purchasing behaviour and understand the significance of strategically planning marketing and know how to apply appropriate tools in the planning. Students will also be familiar with competitive tools and know how to use them. They will make a marketing plan for a design company.

### *Content*

- Basic concepts of marketing
- Marketing process of a company's products/services from strategic planning to an operative business
- Demand and competition environments and analysing one's own organisation
- Positioning
- Segmentation
- Product portfolio
- Business concepts
- Brands
- Crucial competitive tools in marketing
- Marketing plan for a designing company

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, independent study, exam, and online study

### *Assessment*

Grading based on a scale of 1 to 5.

## **Information seeking in design studies, 2 op KH14AATU01 (study unit)**

### *Lecturers*

Leena Elenius, MA

### *Objectives*

Upon completion of the course, students will understand the information acquisition process such that they will be competent in analysing their information needs and choosing the most appropriate sources to satisfy those needs. They will have command of the basic techniques for finding information and know how to evaluate, use and apply the information they find.

### *Content*

- Library and information services at Seinäjoki UAS
- Information and producers of information in the field of design
- Databases and how to use them
- Searching for information online
- Evaluating, using and applying information

Part of the second-year studies are integrated into the designing project courses. Fourth-year studies in this course take place at the beginning of thesis process and they concentrate on acquiring the theory and research information needed for writing the thesis.

### *Literature / Study Material*

Material distributed by the lecturer.

### *Learning Methods*

Lectures, discussion, group/pair work and assignments

### *Assessment*

- Active participation
- Assignments
- Pass/fail

### *Further Information*

Teaching in Information Acquisition is divided into two parts.

## **Research methods, 2 op KH14AATU02 (study unit)**

### *Lecturers*

Communications lecturer

### *Objectives*

Students will be familiar with basic research methods and know how to apply those methods when gathering their own information and data.

### *Content*

- Principles of scientific study
- Principles of research methods
- Ways to gather data and applying them to one's own work

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments

### *Assessment*

Grading based on a scale of 1–5.

## **Scientific writing, 4 op KH14AATU03 (study unit)**

### *Lecturers*

Communications lecturer

### *Objectives*

Students will practise seminar work, both orally and in writing. They will be competent in writing reports about their work, presenting their work and performing peer evaluations of the work of others.

### *Content*

- Reporting on one's own planning projects and thesis work
- Seminar practices and participation in seminars
- Peer evaluation

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lecture, assignments

### *Assessment*

Pass/fail

## **Colour and composition, 3 op KH14BYTA01 (study unit)**

### *Lecturers*

- Jaana Liukkonen, MA
- Artist Mikael Paajanen

### *Objectives*

Students will become familiar with the fundamentals of colour and layout. They will be introduced to the physiology of sight, the psychological impact of colour, the history of colour and their cultural bonds, as well as colour systems. Students will study colour using various methods. As regards layout, students will become familiar with figurative expression and outlaying through drawing and painting. Students will compile a portfolio of the work they have completed during the course. Upon completion of the course, students will be competent in analysing colour and using them systematically in their own work. They will understand various tastes in colour and the basic factors in figurative layout work and know how to apply them in their work. Students will also know how to present a figurative entity, the visual elements of which work in unison.

### *Content*

Colour

- Physiology of seeing and perceiving
- Culturally bound aspects of colour
- Tastes in colour
- Colour symbolism
- Colour systems
- Terminology of colour
- Exercises with colour paper and painting

### *Layout*

- Basic factors in layouts
- Structure of a picture
- Lines, shades (contrast), patterning

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, work in the colour and art workshops

### *Assessment*

- Grading based on a scale of 1–5
- Portfolio
- Process evaluation



## **Life drawing, 2 op KH14BYTA02 (study unit)**

### *Lecturers*

Artist Mikael Paajanen

### *Objectives*

Students will learn to transfer a three-dimensional image onto a two-dimensional surface and practise hand and eye coordination. Students will also practise drawing people by hand, quick croquis sketches, form and value drawings with coal and chalk, and to perceive shapes and dimensions.

### *Content*

- Dimensions of the human body and anatomy
- Influence of lighting on form

### *Learning Methods*

Exercises

### *Assessment*

- Grading based on a scale of 1 to 5
- Self-evaluation
- Portfolio
- Sketch book
- Process evaluation

### *Languages of Instruction*

English

## **Drawing 1, 3 op KH14BYTA03 (study unit)**

### *Lecturers*

Artist Mikael Paajanen

### *Objectives*

Students will develop their own style of artistic expression and their perception of comprehensive entities. They will be adept in analysing the structures of layouts and in describing various atmospheric and colour entities.

### *Content*

- Watercolour painting
- Pastel drawing
- Oil and acrylic painting
- Drawing with coal

### *Learning Methods*

Exercises

### *Assessment*

Grading based on a scale of 1–5.

## **Plastic composition, 4 op KH14BYTA04 (study unit)**

### *Lecturers*

Artist Mikael Paajanen

### *Objectives*

Students will develop their own three-dimensional style of expression. They will learn to perceive three-dimensional shapes and combinations of shapes. Students will also acquire a feeling for internal energies and tensions.

### *Content*

- Sculpting
- Drawing
- Painting

### *Learning Methods*

Lectures, exercises, independent work

### *Assessment*

Grading based on a scale of 1–5.

## **Drawing 2, 2 op KH14BYTA05 (study unit)**

### *Lecturers*

Artist Mikael Paajanen

### *Objectives*

Students will further their knowledge of artistic expression through painting. Using creative, free expression, they will create a piece of art from spontaneous chaos. They will approach colours, shapes, and feeling in their own unique way.

### *Content*

- Analytic perception of colours and shapes
- Psychological and symbolic impacts of shapes, colours and lines
- Oil and acrylic colours and watercolours

### *Learning Methods*

Exercises

### *Assessment*

Grading based on a scale of 1–5.

## **Visual presentation and portfolio, 7 op KH14BYET01 (study unit)**

### *Lecturers*

Sirkku Ylinen, Janne Pekkala, Jaana Liukkonen, Merja Juppo, Anna–Miia Suihkonen, Juhani Haarala, Esa Savola

### *Objectives*

Graphic Design: Students will learn about image processing and image information. They will practise making various electronic presentations. Furniture Design: Students will learn to make their own drawings of their own products to be used in industrial manufacturing Lifestyle Design: Students will learn to present their ideas using typical field–related image techniques They will become familiar with various sketching techniques and tools. Students will develop their own unique style of expression. During their fourth–year studies, students will create their own portfolio in electronic form, which is a representation of their professional expertise. Upon completion of the course, students will be competent in using tools and materials for making presentations in their professional field and to express their ideas clearly to others. They will be able to present their product in a professional manner.

### *Content*

- Tools and materials for making field–related presentations
- Practice with typical field–related visualization tasks
- Development of and diversifying one's own mode of expression
- Designing and creating an electronic portfolio

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Assignments

### *Assessment*

- Grading based on a scale of 1 to 5
- Assignments
- Portfolio
- Process evaluation

## **Perspective drawing, 2 op KH14BYET02 (study unit)**

### *Lecturers*

Nina Kari

### *Objectives*

Students will acquire basic knowledge of and skills in manual perspective drawing and the relationship between plane figures and the surrounding reality.

### *Content*

- Projection theory
- Perspective drawing
- Common visualization techniques

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Assessment*

- Grading based on a scale of 1–5
- Assignments
- Portfolio
- Process evaluation

## **Visual presentation techniques, 4 op KH14BYET03 (study unit)**

### *Lecturers*

Designer Juhani Haarala

### *Objectives*

Students will acquire basic knowledge of digital image processing. They will have command of the Adobe Photoshop, Illustrator and InDesign programmes and practise their skills in their own projects.

### *Content*

- Essential image processing and layout programmes and their features
- Basic graphics tools and menus
- Saving work on a computer, types of files and transferring files
- Adobe Photoshop, Adobe Illustrator, Adobe InDesign
- Scanning and using a digital camera

### *Literature / Study Material*

- Petteri Paananen: InDesign CS3
- Juha Kaukoniemi, Petteri Paananen: Photoshop CS3
- Sampo Korkeila: Illustrator CS3

### *Learning Methods*

Lectures, assignments, independent study and online learning (Moodle)

### *Assessment*

Pass/fail

## **Product Photography, 2 op KH14BYET04 (study unit)**

### *Objectives*

Students will be familiar with the fundamentals of outdoor and studio photography, photographing products, and producing pictorial material for exhibitions and fairs. Upon completion of the course, students will be competent in using a digital camera to take pictures and using common editing functions with image processing software, and they will know how to use various techniques and principles for photographing products in their own projects.

### *Content*

- Using a digital camera
- Lighting techniques
- Using colours
- Shine and reflections on the surface to be photographed

- Photography and layout
- Processing and editing images

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments, and independent work

#### *Assessment*

- Pass/fail
- Portfolio

## **Design 1, 6 op KH14BYMU01 (study unit)**

#### *Lecturers*

- Sirkku Ylinen, MA
- Jaana Liukkonen, MA
- Vuokko Takala–Schreib, PhD
- Anna–Miia Suihkonen, BA

#### *Objectives*

Students will be introduced to the designing profession and the principles of product design and product communication. They will acquire an understanding of how modern designing in the Western World has develop from the time of industrialization to today and how various phenomena have influenced and are influencing the language of design for objects and products. Students will be capable of sensing the tastes of various consumers groups and know how to utilise those tastes in the designing process. Upon completion of the course, students will understand 1) the various phases of the designing process, 2) the different approaches to designing (ecological, ethical, aesthetic, and commercial approached), and 3) the underlying cultural factors in designing. Students will be competent in 1) obtaining and applying information in their design process, 2) using various innovation techniques, 3) scheduling their own work, and 4) presenting their ideas interactively.

#### *Content*

- Functions of designing
- Phases of the design process
- Innovation techniques
- Development of modern designing
- Tastes and consumer cultures

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments, and independent study

#### *Assessment*

Grading based on a scale of 1–5.

## **Design 2, 6 op KH14BYMU02 (study unit)**

#### *Lecturers*

- Jaana Liukkonen, MA
- Sirkku Ylinen, MA
- Vuokko Takala–Schreib, PhD
- Anna–Miia Suihkonen, BA
- Esa Savola, MA

#### *Objectives*

Students will be introduced to user-oriented designing and the notions and practices behind product concepts, as well as issues concerning the responsibilities of the designer in product development. Student will be familiar with various types of contracts in the designing profession as well as the principles of copyrights and industrial property rights. The opportunities for designers to ethically and ecologically influence their design work are also deiscussed. Students will be

competent in obtaining information about future trends and applying those trends to their own designing. Upon completion of the course, students will understand 1) the significance of being able to predict changes in designing in the future operating environment, and 2) the significance of the perspectives of the customer and the user as a basis for designing. Students will be competent in 1) applying the factors for a designer's ethical responsibility needed in designing, 2) applying good, professional contractual usage in their own projects, 3) interpreting cultural factors and current phenomena and values using methods of designing, and 4) working in projects. Students will have command of 1) methods for user-oriented designing, 2) product concepts as a part of the designing process, and 3.) the principles behind copyrights and industrial property rights.

### *Content*

- User-oriented designing and various methods for acquiring user information
- Immaterial and contract laws, copyrights, industrial property rights, and contract models.
- Trends and surveying directions in designing (PEST analysis, political, economical, social, technological and ecological factors)
- Forms of concepts and business roles
- Sustainable development in designing
- Managing a design project

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, independent study and exam

### *Assessment*

Grading based on a scale of 1–5.

## **Design 3, 5 op KH14BYMU03 (study unit)**

### *Lecturers*

- Jaana Liukkonen, MA
- Sirkku Ylinen, MA
- Vuokko Takala-Schreib, PhD
- Anna-Miia Suihkonen, BA

### *Objectives*

Students will learn to outline, plan and manage the product design and designing process and gain advanced knowledge of the typical duties associated with the designing profession. They will become familiar with the various areas of leadership as a part of the designing business, methods of predicting trends and the phases involved in designing projects. Students will become aware of quality control systems and their significance in business and their influence on the designer. As regards product design, students will gain knowledge of the ways to prepare products for industrial manufacture, the significance of designing in the development of production, the principles of production design and control, as well as the significance of various production models in the pricing of products. Upon completion of the course, students will understand 1) the significance of quality as part of designing and the basic ideas behind quality control systems, 2) the significance of the designing process as part of marketing and business, and 3) the essential manufacturing processes in their professional field. Students will be capable of 1) adapting the signs of the product to the business image, and 2) predicting future trends and ensuring the operations environment can adapt to change. Students will have command of 1) the designing process, 2) design techniques and the use of tools and, 3) procedures for working in a project.

### *Content*

- Methods for predicting future trends (e.g. environmental scanning, scenarios)
- Quality control systems (ISO9000, EFQM)
- Production planning
- Channels for obtaining project funding
- Managing design projects (planning, defining goals, obtaining information and selecting designing methods, scheduling, preparation, organisation, resources, monitoring, reporting and subsequent management)
- The designer as an entrepreneur (from design to product, making offers, pricing and principles of prices, typical contract models in designing)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, and independent study

### *Assessment*

Grading based on a scale of 1–5.

## **Graphic design workshop, 5 op KH14BATG (study unit)**

### *Lecturers*

Artesan Juhani Haarala

### *Objectives*

What is graphic design, the history and current trends in graphic design? Students will learn to analyse graphic symbols and the functions of various communicational and cultural signs. They will also become familiar with various finishing tools and portfolio techniques in the graphics field. Students will learn about printing techniques, drafting and the use of colour, and other general concepts.

### *Content*

- Basics in graphic design
- Graphic design techniques

### *Literature / Study Material*

- Lasse Sumiloff: Graafisen suunnittelijan teknologia
- Soili Pesonen, Juha Tarvainen: Julkaisun tekeminen
- Loiri–Juholin: Visuaalisen viestinnän käsikirja
- Hand-outs

### *Learning Methods*

Lectures and work in groups and independently

### *Assessment*

- Grading based on a scale of 1 to 5
- Self-evaluation
- Portfolio
- Exams

## **Furniture design workshop, 5 op KH14BATK (study unit)**

### *Lecturers*

- Sirkku Ylinen, MA
- Jaakko Puranen, MA

### *Objectives*

Through the construction of a character model and/or a miniature model, students will become familiar with spatial planning. They will also learn about occupational and industrial safety when working with machines. Students will acquire an understanding of the design process through practical activities. Based on a given theme, they will design a space and implement their design independently. Students will construct a miniature model of the space and its elements to which they will apply various techniques and materials. Students will be competent in sketching out their ideas and in making character and miniature models. They will know how to make drawings and presentation graphics of their final plan.

### *Content*

Materials and their purpose

- Wood, metal, plastic

Basics in spatial planning

- Perceiving the use of the space with the aid of a miniature model
- Designing elements of the space and placing them in the given space according to scale
- Innovation, sketches, character models of a space, technical drawings of the plan, finished miniature model

## Procedures

- Working with miniature models
- Wood working machines

## *Literature / Study Material*

To be announced at the beginning of the course.

## *Learning Methods*

Assignments, lectures, independent and group work

## *Assessment*

- Grading based on a scale of 1–5
- Self-evaluation
- Process evaluation

## **Lifestyle design workshop, 5 op KH14BATL (study unit)**

### *Lecturers*

- Jaana Liukkonen MA
- Designer Merja Juppo

### *Objectives*

Students will acquire basic knowledge and skills in serigraphy and textile materials. As a technique, serigraphy offers a diverse range of opportunities for patterning various products and materials. Students will also learn how to work in a printing workshop and understand the significance of occupational safety in their own work. Upon completion of the course, students will be competent in utilising PhotoShop in pattern design and making a recurrent surface and colour separation. Students will also know how to independently design patterned surfaces for various materials. They will be familiar with direct emulsion stenciling and know how to maintain tools. Students will be aware of the dangers of working with chemicals and know how to take appropriate measures in case of an accident. They will understand the importance of occupational safety and abide by general safety instructions. Students will be familiar with the properties of various textile materials and know how to select appropriate textiles based on how it will be used. They will also be able to identify basic fibres.

### *Content*

PhotoShop as a Tool for Pattern Design: 1 cr

- Tools
- Using filters
- Types of files
- Resolution
- Editing a report
- Reducing colour and colour separation

Pattern Design: 1.5 cr

- Single patterns, recurrent patterns
- Various reporting systems and their influence on the outer appearance of a patterned surface
- Designing one's own pattern/patterned surface

Basics in Printing: 2 cr

- Positive exposure techniques
- Direct emulsion stenciling
- Tools for printing, maintenance and use
- Pigment colours, mixing colours and special colours
- Printing textiles, paper, wood and plastic surfaces
- Targeting
- Occupational safety

Textile Materials: 0.5 cr

- Natural and synthetic fibres
- Areas of use, properties and maintenance
- Identification

- Structures of textile materials and their influence on properties
- Surfacing and surface treatment techniques

#### *Learning Methods*

Lectures and working in the workshop, Moodle

#### *Assessment*

- Grading based on a scale of 1–5
- Portfolio
- Process evaluation
- Exam

### **Picture information, 6 op KH14BAGR100 (study unit)**

#### *Lecturers*

Esa Savola, MA

#### *Objectives*

The course concentrates on the historical and practical foundations of graphic symbols and signs, as well as information graphics. Learning takes place in the form of exercises given in lectures and workshops where students acquire knowledge of graphic signs, designing information graphics, and design in general. Students will have command of image information, character sets and symbols and know how to apply the principles of designing signs and symbols to various graphic design tasks and to various media.

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments

#### *Assessment*

Grading based on a scale of 1–5.

### **Basics of typography, 3 op KH14BAGR110 (study unit)**

#### *Lecturers*

- Designer Juhani Haarala
- Teija Olkkola

#### *Objectives*

The course concentrates on the historical and designing aspects of type design, and it comprises lectures and workshops where students learn to use alphabet character sets and symbols and to apply the principles of typography in various areas of graphic design and media.

#### *Learning Methods*

Lectures, assignments

#### *Assessment*

Pass/fail

### **Typographical project, 3 op KH14BAGR120 (study unit)**

#### *Lecturers*

- Esa Antero Savola, MA
- Juhani Haarala, BA

#### *Objectives*

What are the dimensions that determine professional expertise in designing? How are the needs of the user considered in graphic design? What is the realm of the graphic design profession like? Students will learn to define, design, schedule and implement a project of designing a typographical set of symbols or system of codes based on user-oriented design.

#### *Content*



- Defining user-oriented design
- Designing the system level
- Conceptual foundations and management of a designing project from the commission to the presentation
- Usability
- User information
- User scenarios
- Own project
- Optional focus

#### *Literature / Study Material*

- Keinonen: Miten käytettävyyys muotoillaan
- Kettunen: Muodon palapeli
- Norman: Miten avata mahdollisuuksia?
- Hand-outs

#### *Learning Methods*

Lectures, group work and independent study

#### *Assessment*

- Grading based on a scale of 1–5
- Self-evaluation
- Portfolio
- Process evaluation

#### *Prerequisites*

Graphic Symbols and Codes

### **Wood module, 6 op KH14BAKA101 (study unit)**

#### *Lecturers*

- Sirkku Ylinen, MA
- Jaakko Puranen, MA

#### *Objectives*

Concept Design I: 2 cr Students will have command of various drafting techniques and technical drawing, and they will know how to make miniature models. They will be familiar with product ergonomics, dimensioning, the functionality of various shapes, and with the concept of balance. They will experiment with ergonomics and develop shapes based on an idea, and they will document the phases of the designing process. Upon completion of the course, students will be capable of perceiving and understanding the designing process, know how to compile a portfolio and various designing documents. Product Design I: 4 cr Students will be competent in designing and producing an object based on a brief. Upon completion of the course, students will be literate in dimensional drawings, know how to produce a prototype based on a design and to document and present their design, understand the fundamentals of designing various objects and the concept of ergonomics as regards designing, and they will be competent in working with and shaping various materials.

#### *Content*

Concept Design I

- Experiments
- Drafts
- Making miniature models
- Technical drawing
- Making a presentation image
- Presentation of one's work

Product Design I

- Independently making a prototype based on drawings
- Documentation, portfolio
- Presentation of one's finished work

#### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, and independent work

### *Assessment*

Grading based on a scale of 1–5.

## **Metal and plastic module, 6 op KH14BAKA111 (study unit)**

### *Lecturers*

- Sirkku Ylinen, MA
- Jaakko Puranen, MA

### *Objectives*

Concept Design II: 2 cr Students will be competent in acquiring information. They will experiment and develop structures and shapes based on an idea and document the phases of the designing process. Students will make a schedule and working plan for the production process of a prototype. Upon completion of the course, students will have command of time management, know how to compile a portfolio based on documentation, and understand the importance of experimenting with different materials. Product Design II: 2 cr Students will be familiar with the basic issues involved in working with metal and plastic. Students will be adept in using machines for working with metal and plastic, know how to select appropriate raw materials, have command of various techniques for joining pieces, know how to combine various materials and to surface treat and finish a product. Students will design and produce an object based on a brief. Upon completion of the course, students will be competent in documenting and presenting a design, understand the fundamentals of design, and know how to work with and shape various materials.

### *Content*

Concept Design II

- Finding an idea, experiments, drafts
- Miniature models, technical drawings
- Presentation of one's work

Product Design 2

- Finding an idea, experiments, drafts
- Miniature models, technical drawings
- Presentation of one's work

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments, and independent work

### *Assessment*

Grading based on a scale of 1–5

## **Product design, 6 op KH14BALS101 (study unit)**

### *Lecturers*

Jaana Liukkonen and Anna-Miia Suihkonen

### *Objectives*

Students acquire a comprehensive picture of lifestyle design and the type of work it involves. Students will construct their own product concept for an external client. During the process of creating the concept, students will become familiar with various lifestyle groups and their needs and develop their concept based on those needs. Sustainable development and the ethical aspects of designing play a significant role in the process. Students also practice how to present their thoughts in a professional way and familiarise themselves with various ways to present a product. Upon completion of the course, students will understand the special features of different lifestyle groups and the differences in their needs. They will also understand the principles of ecological and ethical designing and be competent in applying those principles in their design work. Students will have the knowledge and skills they need to design a functional product concept and to present it visually.

### *Content*

- Ecological and ethical designing, environmental impact of materials and techniques

- Creating a product concept for a specific user group
- Lifestyle target groups and consumers/consuming
- Sketching techniques, three-dimensional aspects, designing process

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Exercises

#### *Assessment*

- Exercises
- Portfolio
- Exam
- Process assessment

Grading is based on a scale of 1 to 5.

## **Re-design workshop, 6 op KH14BALS111 (study unit)**

#### *Lecturers*

Jaana Liukkonen and Anna-Miia Suihkonen

#### *Objectives*

This workshop introduces students to different ways of working with recyclable raw ingredients and materials. Emphasis is placed on soft materials and the understanding of such materials. Students also learn about the principles for designing three-dimensional products and produce prototypes for clients. Upon completion of the course, students will understand the opportunities the production techniques of soft materials offer in the modifying of the material. They will be competent in identifying various materials and determining the use of various materials based on their characteristics. Students will be aware of the significance of selecting the right material to the quality of a product. They will also be competent in using the tools in the workshops.

#### *Content*

- Familiarisation with how to work with various soft materials that can be used in modifying recyclable materials
- Designing three-dimensional products
- Familiarisation with various materials
- Production of prototypes based on a product concept

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Exercises

#### *Assessment*

- Exercises
- Portfolio
- Exam
- Process assessment

Grading is based on a scale of 1 to 5.

#### *Languages of Instruction*

Finnish

## **Illustration, 5 op KH14BAGR200 (study unit)**

#### *Lecturers*

- Designer Juhani Haarala, BA
- Designer Olli Kiviluoto, BA

### *Objectives*

The course concentrates on the foundations of areas of application for manual and computer-aided illustration. Learning takes place in the form of exercises given in lectures and workshops and, based on what they have learned, students will learn both manual and computer-aided illustration techniques. Students will also design and implement illustrations for various purposes and media.

### *Content*

- Illustrations for articles, manual techniques
- Advancing skills in using Adobe Photoshop
- Drawing tables for computer-aided or manual illustration

### *Literature / Study Material*

- Bruun, Erik. Sulka ja kynä: Erik Bruunin julisteita ja käyttögrafiikkaa / Text: Ulla Aartomaa and captions: Erik Bruun

### *Learning Methods*

Lectures, exercises, independent work, online learning environment (Moodle), workshops

### *Assessment*

Grading is based on a scale of 1–5.

## **Layout design and publishing, 5 op KH14BAGR210 (study unit)**

### *Lecturers*

Teija Olkkola

### *Objectives*

Students will acquire knowledge of the foundations of layout for printed products and the areas of application. The course takes the form of lectures and workshops where students learn how to use layout programmes and publication systems in various publication tasks and media.

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Grading based on a scale of 1–5.

## **Basics of Web-design, 6 op KH14BAGR220 (study unit)**

### *Lecturers*

Calle Grönlund, BA

### *Objectives*

The course concentrates on the technical and communicative aspects of publishing on the Internet. The course comprises lectures and workshops where students will learn to use Internet publishing programmes and systems for various publishing tasks and areas of use.

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Grading based on a scale of 1–5.

## **Basics of interface design, 5 op KH14BAGR230 (study unit)**

### *Lecturers*

Calle Grönlund, BA

### *Objectives*

The course concentrates on the ergonomic and technical foundations of user interface design and its areas of application. Learning takes place in the form of exercises given in lectures and workshops with which students learn the principles of user-oriented design of user interfaces. Students will learn how to design and implement user interfaces for various uses.

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments

### *Assessment*

Grading based on a scale of 1–5.

## **Innovation project, 8 op KH14BAKA200 (study unit)**

### *Lecturers*

Sirkku Ylinen, MA Jaakko Purtaanen, MA

### *Objectives*

Students will develop their views on design philosophy. Students will engage in a project that concentrates on form, selecting material, structures, production techniques and various areas of utilisation. Upon completion of the course, students will be competent in acquiring information about various materials and know how to use them creatively. They will write a journal and make a digital portfolio.

### *Content*

- Manual sketching, presentation pictures
- 3D modelling and visualization
- Miniatures, pattern models, detail models
- Several material demonstrations and a material map based on them
- Designing a prototype and production based on the acquired information
- Documentation, portfolio, presentation of a completed project

### *Literature / Study Material*

- Keinonen, T. & Jääskö, V. (eds.). 2004. Tuotekonseptointi. Teknologiateollisuus ry.
- Lecture hand-outs

### *Learning Methods*

Lectures, exercises

### *Assessment*

- Grading based on a scale of 1 to 5
- Evaluation of product(s) and the associated designing documents based on the objectives of the project
- Process evaluation: requires attendance and participation in the mid-term and final evaluation discussions

### *Prerequisites*

First-year studies

### *Languages of Instruction*

Finnish

## **User centered project, 8 op KH14BAKA210 (study unit)**

### *Lecturers*

- Sirkku Ylinen, MA
- Jaakko Purtaanen, MA

### *Objectives*

Students will design a piece of furniture or a furniture product range for industrial manufacture, which meets the virtual or real goals of a company. Upon completion of the course, students will understand industrial manufacturing and the production process, know how to use illustrative research tools to solve user-oriented problems in design.

### *Content*

- Manual sketching, digital pictures
- Product concepts in miniature, detail and pattern models
- Reporting about the design process

### *Literature / Study Material*

- Keinonen, T. (ed.). 2000. Miten käytettävyyks muotoillaan? Fang Hai. 2001. Yrjö Kukkapuro. Furniture Designer. Southeast University Press

### *Learning Methods*

Lectures, excercises, field trips

### *Assessment*

- Grading based on a scale of 1–5
- Product and associated designing documents are evaluated according to the objectives of the project
- Process evaluation requires attendance and participation in mid–term and final progress discussions

### *Prerequisites*

Empirical innovation project

### *Languages of Instruction*

Finnish

## **Basics of interior design, 3 op KH14BAKA220 (study unit)**

### *Lecturers*

Sirkku Ylinen, MA

### *Objectives*

How are the customers needs taken into consideration in interior decorating? How do light and colour shape a room? How do various everyday activities structure the space? The purpose of interior decorating is to guarantee and improve the spatial and material quality of people's living environment. Students will learn to work with comprehensive entities in interior decorating.

### *Content*

- Space
- Lighting
- Living
- Furnishing
- Interior decorating materials
- User–oriented decorating
- Professional drawing
- Interaction of colours
- Compatibility of various shades of colour
- Proportions of coloured surfaces
- Brightness
- Decorating the space

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments and independent work

### *Assessment*

Grading based on a scale of 1–5.

## **Basics of 3D design, 2 op KH14BAKA230 (study unit)**

### *Lecturers*

Juhani Haarala, BA

### *Objectives*

Students will practise their skills in using CAD and 3D programmes. Students will work independently in the project. They will create a virtual model of a piece of furniture using their own design.

### *Content*

Modelling a product in the virtual environment

- Basic elements
- Surfaces
- Volume
- Projections
- Lighting
- Material properties
- Surface patterns
- Transparency, shadows, fuzziness
- File formats for models

## **Basics of interior design and 3D modelling, 5 op KH14BALS200 (study unit)**

### *Lecturers*

- Interior Designer Nina Kari
- Juhani Haarala, BA

### *Objectives*

Students will become familiar with the principles of spatial planning and learn to use modelling programmes. Upon completion of the course, students will be competent in reading architectural drawings and understand the principles of spatial planning. They will also know how to use modelling programmes to present their own ideas.

### *Content*

Spatial planning

- Dimensions and drawing symbols
- Functions of the space
- Materials and lighting

Modeling

- Intericad/Archicad
- Poser5

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Assignments and lectures

### *Assessment*

- Grading based on a scale of 1–5
- Assignments
- Portfolio
- Process evaluation

## **Lifestyle collection project 1, 10 op KH14BALS210 (study unit)**

### *Lecturers*

Anna-Miia Suihkonen, Jaana Liukkonen, and Merja Juppo

### *Objectives*

The project involves the designing of an entire range of models based on a hobby or other activity. The target groups and partner companies vary each year. The aim is to concentrate on the needs of the user as a basis for design and to acquire a diverse amount of information about the needs of the consumer segments. Students will have command of model range concepts, and they will consider functionality and usability, as well as trends, in the design of products. The range of models will be designed in teams to practise working together with others. The range will be made into prototypes with appropriate technology. Upon completion of the course, students will understand the principles of creating a range of

models and know how to utilise user information as a basis for their own designing. Students will know how to acquire user information and analyse it, as well as to visually present their own ideas to customers. Students will be competent in working on a team and in co-operation with external commissioners.

### *Content*

- Concepts (determining the user group and acquiring user information, experimenting, design based on needs, presentation techniques, functionality and usability)
- Working with prototypes/manufacture (from concept to prototype with appropriate technology, theory of manufacture)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Assignments

### *Assessment*

- Grading based on a scale of 1–5
- Task evaluation
- Portfolio
- Process evaluation
- Exam

## **Theme Lectures, 6 op KH14BALS220 (study unit)**

### *Lecturers*

Anna-Miia Suihkonen, Jaana Liukkonen, and Merja Juppo

### *Objectives*

The course concentrates on the principles of visually planning various events. Students will carry out the visualization of an event for an external commissioner. The events vary each year and they may be expos, exhibitions, demonstrations, concerts, festivals, etc. Upon completion of the course, students will be competent in producing the appropriate visual and experiential aspects of an event. They will know how to organise the various elements of the project and contact the necessary bodies. Students will also know how to make schedules and budgets and work according to them. They will monitor their own work and report on it.

### *Content*

- Planning expos and exhibitions (structures, lighting, organisation, budgeting)
- Modelling (small-scale modelling/modelling from still-life)
- Adventure marketing (managing the customer's experience: senses, intelligence, social behaviour, feelings)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Exercises

### *Assessment*

- Grading based on a scale of 1–5
- Product development report
- Production and process evaluation

## **Design management, 4 op KH14BAGR300 (study unit)**

### *Lecturers*

Esa Savola, MA

### *Objectives*

Students will acquire knowledge of the theoretical foundations of creating a business image from the historical and practical points of view. The course takes the form of lectures and workshops where students learn about the practices associated with leadership in designing from the point of view of the business image. They will be competent in applying the leadership practices in various communicative situations and with customers.



*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures and assignments

*Assessment*

Grading based on a scale of 1–5.

**Package design, 5 op  
KH14BAGR310 (study unit)**

*Lecturers*

Esa Savola, MA

*Objectives*

Students will acquire knowledge of the foundations of strategically designed packaging from the historical and practical points of view. They will create a packaging concept based on a commercial, ideological or political commission. The course takes the form of lectures and workshops where students learn how to design and implement a packaging concept for the future. Students will learn to define, design, schedule and implement a small-scale packaging concept.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures and assignments

*Assessment*

Grading based on a scale of 1–5.

**Brand seminar, 5 op  
KH14BAGR320 (study unit)**

*Lecturers*

Esa Savola, MA

*Objectives*

Studies concentrate on the strategic foundations of product image design from the historical and practical points of view. Students will create a future-oriented brand concept based on a commercial, ideological or political commission. Learning will take place in the form of lectures and workshops, which will aid students in understanding the design and implementation of brand concepts in the field of graphic design. Students will learn to define, plan, schedule and implement a small-scale brand concept.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, assignments

*Assessment*

Grading based on a scale of 1 to 5.

**Corporate identity programs, 5 op  
KH14BAGR330 (study unit)**

*Lecturers*

Esa Savola, MA

*Objectives*

Students will be introduced to the strategic areas of designing a business image from a historical and practical point of view. Students will produce a communicative range of business emblems, typography and recommendations for creating a corporate image based on a commercial, ideological or political commission. The course comprises lectures and workshops where students will learn to plan and implement a customer-oriented project in graphic design within the framework of corporate image design. Students will have command of various planning activities in designing and of recommending corporate image programmes.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*  
Lectures and assignments

*Assessment*  
Grading based on a scale of 1–5.

## **User Centered Industrial Collection 2, 8 op KH14BAKA301 (study unit)**

*Lecturers*  
Jaakko Puranen, MA

*Objectives*  
The project will be carried out as teamwork together with several companies. The outcome of the project will be a piece of furniture, a furniture product range, fixture or other interior cladding element suitable for the production of an industrial company. Upon completion of the course, students will understand the production process of a company and its design and marketing strategies. Students will know how to create a concept for a product and visualize the preferred styles and shapes of the end-user.

*Content*

- Familiarisation with the user context according to a company's briefing, usability studies
- Creating a style and shape palette, visualizing the concept of a product
- Miniature, detail, pattern, and test models, as well as prototypes, designing a product for production
- Product design report

*Literature / Study Material*  
To be announced at the beginning of the course.

*Learning Methods*  
Lectures, assignments and independent work

*Assessment*  
Grading based on a scale of 1–5

## **User Centered Industrial Collection 3, 11 op KH14BAKA310 (study unit)**

*Lecturers*  
Sirkku Ylinen, MA

*Objectives*  
How are the customer's needs taken into consideration in interior decorating? How do colour and light shape a room? How do various everyday activities shape the space in which we live? The purpose of interior decorating is to guarantee and improve the quality of the spacial and material living environment of people. Students will learn to work with interior decorating entities.

*Content*

- Space
- Lighting
- Living
- Furnishing
- Interior decorating materials
- User-oriented interior decorating
- Professional drawing
- Interaction of colours
- Compatibility of different shades of colour
- Proportions of surfaces with colour
- Brightness
- Designing a room

*Literature / Study Material*  
To be announced at the beginning of the course.

*Learning Methods*  
Lectures, assignments and independent study

### *Assessment*

Grading based on a scale of 1–5.

## **Cultural Collection, 6 op KH14BALS330 (study unit)**

### *Lecturers*

Anna–Miia Suihkonen, Jaana Liukkonen and Merja Juppo

### *Objectives*

The basis for creating a collection is cultural heritage. Students will design and innovative product collection that can be industrially manufactured and create a marketing plan for it. Upon completion of the course, students will be competent in designing their own cultural heritage in designing products. They will understand the principles of production planning, and they will know how to make a plan for launching a product into the market.

### *Content*

- Creating concepts and productization
- Cultural heritage (collections, literature)
- Production (appropriate technique)
- Marketing a new product (planning campaigns and launching the product into the market)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Exercises

### *Assessment*

- Portfolio
- Product and process assessment

Grading is based on a scale of 1 to 5.

## **Concept Collection, 7 op KH14BALS340 (study unit)**

### *Lecturers*

Anna–Miia Suihkonen, Jaana Liukkonen, Merja Juppo

### *Objectives*

Students will create a collection concept of the future. The basis for the creation of the collection are the scenarios of the future and new, innovative materials. Students will produce a visual concept. Upon completion of the course, students will have command of different methods to predict the future and to utilise the latest information about materials and techniques.

### *Content*

- Creating concepts: emotional design, segmentation, sociology, consumer behaviour, sustainable development, and futurology
- Working with and making prototypes: innovations in materials, digital presentation/modelling of a product

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Exercises

### *Assessment*

- Portfolio
- Assessment of product and process
- Exam

Grading is based on a scale of 1 to 5.

## **Business concept design project, 6 op KH14BALS320 (study unit)**

### *Lecturers*

Anna-Miia Suihkonen, Jaana Liukkonen, Merja Juppo, Haarala/Savola

### *Objectives*

Students will further their own business idea or the business idea of an external commissioner, which they developed in the business module. The aim is to create an innovative business concept of the future in a certain lifestyle segment. Students will design a comprehensive concept for a shop and its entire operations. Students will also acquire knowledge of the principles of shop design. Upon completion of the course, students will understand the principles of creating a business idea and designing a shop. They will acquire skills in spatial modelling and graphic design. Students will also have command of large, visual concept entities and their contents.

### *Content*

- Shop concepts (lighting, materials, furnishings, guiding customers, designing the product range, expos, purchasing activities)
- Graphic design and modelling (designing and producing marketing material)
- Service and relations marketing (networks, customer service, internal marketing)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Assignments

### *Assessment*

- Grading based on a scale of 1–5
- Report
- Portfolio
- Product and process evaluation

## **Campaign design, 5 op KH14BAGR400 (study unit)**

### *Lecturers*

Esa Savola, MA

### *Objectives*

The course concentrates on the strategic foundations of advertising and campaign design and the areas to which it can be applied from the historical and practical points of view. Learning takes place in the form of exercises given in lectures and workshops and, based on what they have learned, students will design and produce an advertising campaign or advertising campaign concept based on a commercial, ideological or political concept, or a concept of their own. Students will learn to define, design, schedule and implement a small-scale marketing campaign.

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments

### *Assessment*

Grading based on a scale of 1 to 5.

## **Interface design, 4 op KH14BAGR410 (study unit)**

### *Lecturers*

Calle Grönlund, BA

### *Objectives*

The course concentrates on the strategic foundations of user interface design and its areas of application from the historical and practical points of view. Learning takes place in the form of exercises given in lectures and workshops with which students will acquire knowledge of design concepts. Students will learn to define, design, schedule and implement a design concept for a graphic user interface.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, assignments

*Assessment*

Grading based on a scale of 1–5.

**Innovative graphic design project, 10 op  
KH14BAGR420 (study unit)**

*Lecturers*

Esa Savola, MA

*Objectives*

The course concentrates on the strategic foundations of innovative concept design and the areas to which it can be applied from the historical and practical points of view. Learning takes place in the form of exercises given in lectures and workshops and, based on what they have learned, students will design and produce an innovative product design project based on a commercial or ideological concept. Students will learn to define, design, schedule and implement a product design project.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, assignments

*Assessment*

Grading based on a scale of 1 to 5.

**Concept Design, 6 op  
KH14BAKA400 (study unit)**

*Lecturers*

Vuokko Takala–Schreib, PhD

*Objectives*

Emphasis in the course is placed on acquiring understanding of previous knowledge about design, e.g. a previous product or project. Students will become familiar with the opportunities technology offers for creating new solutions and satisfying the consumer needs that have become evident in research.

*Content*

- An enticing idea or ambiguously identified opportunity as the basis
- Symbols (metaphor), reference to a product's physical properties
- Scenarios, (story) describing a product's use and dimensions of interaction
- Design engine, a product's essential property

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, assignments and independent study

*Assessment*

Grading based on a scale of 1–5.

**Futures studies, 6 op  
KH14BAKA410 (study unit)**

*Lecturers*

Vuokko Takala–Schreib, PhD

*Objectives*

To create a product concept of the future.

*Content*

- Trends
- Megatrends
- Scenarios
- For ex. a project: updating a company's range of models according to the culture of the export country and consumer tastes
- For ex. taking the lifestyle of the elderly into consideration when designing space for them
- Impact of climate change?
- Ecological materials, sustainable development

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments and independent work

#### *Assessment*

Grading based on a scale of 1–5.

### **Co-operation project, 7 op KH14BAKA420 (study unit)**

#### *Lecturers*

Jaakko Puranen, MA

#### *Objectives*

Students will create a new or further develop an existing concept, prototype or product for marketing and productization. They will engage in a product design project either on a team or independently. The outcome of the project will be a professionally documented product or model range. Upon completion of the course, students will be competent in professionally producing quality documents, have command of the development of concepts through product development, and understand the requirements of productizing a product or model range.

#### *Content*

- Refining documents in a professional manner according to the requirements of productization
- Analysing and defining the requirements for productization
- Independent management and scheduling of the process for creating a concept for industry and product design

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments and independent work

#### *Assessment*

Grading based on a scale of 1–5.

### **Brand development, 6 op KH14BALS400 (study unit)**

#### *Lecturers*

Anna-Miia Suihkonen, Jaana Liukkonen, Merja Juppo

#### *Objectives*

Students will engage in a project to create a brand for a product, service or lifestyle group. They will create a comprehensive brand concept, which comprises the visual aspects of the brand as well as its story. Students will create a website for their brand. Upon completion of the course, students will apply the techniques of design in creating a brand for a service. They will understand how the service experience can be improved. They will also be competent in developing a visual image for a company.

#### *Content*

- Brand marketing
- Other media and creation of a website (content and visual image)
- Concepts (stories, environmental planning, packaging, name, logo, characters, communication)

#### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

#### Assignments

#### *Assessment*

- Grading based on a scale of 1 to 5
- Assignments
- Portfolio
- Process evaluation
- Exam

## **Research in design, 6 op KH14BALS410 (study unit)**

### *Lecturers*

Anna-Miia Suihkonen, Jaana Liukkonen, and Merja Juppo

### *Objectives*

Students will partake in R&D projects pertaining to their own professional field and/or they will create content for various articles to be published or programmes (the net, TV, radio). Upon completion of the course, students will be competent in producing material for various texts to be published. They will also know how to find, analyse and produce field-related information.

### *Content*

- Communications (articles, essays, products to be published)
- Working in projects

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Assignments and lectures

#### *Assessment*

- Grading based on a scale of 1–5
- Production and process evaluation

## **Co-operation project, 7 op KH14BALS420 (study unit)**

### *Lecturers*

Anna-Miia Suihkonen, Jaana Liukkonen, and Merja Juppo

### *Objectives*

Students will carry out a development project based on the commission of an external body. Upon completion of the project, students will be competent in independently handling customer relations and consider the needs of the customer/company and the terms set forth by the customer/company in their own designing, as well as in keeping to a set schedule. Students will know how to make a partnership/commission contract, bill the customer for performed work, and abide by the issues that have been agreed upon. Students will also understand the main principles of international business and the practices involved in fairs.

### *Content*

- Creating concepts
- Project management
- Business and internationalisation (import and export, international fairs)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Assignments and lectures

#### *Assessment*

- Grading based on a scale of 1–5

- Product development report

## **Interiordesign project, 20 op KH14VOSIS (study unit)**

### *Lecturers*

Sirkku Ylinen, MA

### *Objectives*

Module 1: 5 cr Students will become familiar with customer– and user–oriented processes of interior decorating based on spatial and user analyses. They will make professional drawings and presentation graphics in different dimensions for project plans. Students will understand the principles behind designing furniture and lighting, and they will be introduced to practices associated with project work. Students will learn about various surface materials used in interior decorating and their properties. Module 2: 5 cr Students will be introduced to project work in interior decorating and the practices associated with professional project presentations. They will become competent in comprehensively creating, producing and presenting a project plan (space, lighting, fixtures and furniture, decor elements) of a chosen place. Module 3: 10 cr Students will understand the underlying processes involved in customer relations, and they will become familiar with the productiveness of design work and productization as well as the co–ordination of interior decorating projects. Students will also be introduced to the work of freelancers, professional networking, and marketing a designing company or services.

### *Content*

#### Module 1

- Individual learning needs and interests in interior decorating
- Living, designing for the end–user, functionality
- Furniture and furnishing in the home
- Architecture, lighting design, colour, space
- Interior decorating materials for various places in the home (kitchen, bath/sauna, rooms)
- Professional presentation techniques, symbols in drawings, visualization (professional drawings and presentation graphics in various dimensions for project plans)
- Trends, lifestyles, style periods
- Requirements: project plan, project presentation and project portfolio

#### Module 2

- Individual learning needs and interests in interior decorating
- Furniture, furnishing, fixtures and decor elements
- Architecture, lighting design, colour, space
- Decorating materials in public places, fire safety, durability
- Professional presentation techniques, symbols in drawings, visualization
- Borders between public and private space
- Requirements: project plan, project presentation and project portfolio

#### Module 3

- Individual learning needs and interests in interior decorating
- Living, designing for the end–user, functionality
- Furniture and furnishing
- Architecture, lighting design, colour, space
- Interior decorating materials
- Professional presentation techniques, symbols in drawings, visualization (professional drawings and presentation graphics in various dimensions for project plans)
- Trends, lifestyles, style periods
- Borders between public and private space

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments and independent work

### *Assessment*

Grading based on a scale of 1–5.



## Collection design, 20 op KH14VOMAL (study unit)

### *Lecturers*

- Jaana Liukkonen, MA
- Designer Merja Juppo
- Designer Anna-Miia Suihkonen

### *Objectives*

Collection Design is divided into three optional parts: Designing and Producing Woven Textiles, Designing Printed Fabrics, and Fashion Designing. Students choose one of the areas in which to advance their knowledge. The modules in Collection Design are suitable for all fields. Designing and Producing Woven Textiles Module 1/Rugs: 5 cr

- Creating a collection of rugs
- Rug designs made primarily by hand (drawing)

#### Module 2/Jacquard Fabrics: 5 cr

- Designing patterns in woven fabrics using the Jacquard technique
- Possible co-operation with a customer
- Patterns designed primarily with an image processing programme

#### Module 3/Designing Textiles for Public Interior Decorating: 5 cr

- Designing woven textiles for public places
- Familiarisation with the designing of textiles for public places
- Patterns designed either by hand or image processing programmes
- Possible co-operation with customers

#### Designing Printed Fabrics Module 1/Designing Prints 1: 5 cr

- Creating a pattern collection for products to use in interior decorating (wallpapers, fabrics, tiles)
- Patterns designed primarily by hand

#### Module 2(Designing Prints 2: 5 cr

- Designing patterns and prints for paper products (e.g. gift wrapping, disposable products)
- Possible co-operation with a customer
- Patterns and prints designed primarily with an image processing programme

#### Module 3/Designing Prints 3: 5 cr

- Designing prints and patterns for clothes and accessories
- Familiarisation with advertising products and spin-offs and the designing of their patterns
- Prints designed either by hand or with an image processing programme
- Possible co-operation with a customer

#### Fashion Designing Module 1/Fashion Designing 1: 5 cr

- Designing clothing and/or accessory collections for a chosen target group and specific use
- Emphasis on the diversity of innovation and development of speed
- Fashion styles designed primarily by hand

#### Module 2/Fashion Designing 2: 5 cr

- Designing clothing and/or accessory collections for a chosen target group and specific use
- Emphasis on ecology and ethical aspects in designing
- Possible co-operation with a customer
- Fashion styles designed primarily with an image processing programme

#### Module 3/Fashion Designing 3: 5 cr

- Designing clothing and/or accessory collections for a chosen target group
- Emphasis on the productization of one's own collection
- Possible co-operation with a customer
- Possibility to emphasise either the collection's visual presentation or creation of a prototype depending on one's interests

#### Module 4: 5 cr

- Designing one's own collection for an external customer
- Tutorial guidance in the spring of the fourth academic year

#### *Content*

##### Designing and Producing Woven Textiles Module 1

- Basics in designing woven fabrics, colouring
- Contracts associated with sales and necessary forms

##### Module 2

- Limitations in pattern design set by the product and technology
- Creating one's own collection, using image processing programmes as a tool in pattern design
- Experiments with materials and weaves with the TC-1 weaving device

##### Module 3

- Demands of public places, architecture and standards on textiles for public places
- Designing one's own element for decorating the interior of a public place

##### Designing Printed Fabrics Module 1

- Continuous pattern surfaces (reports), basics in designing patterned products, colouring
- Contracts associated with sales and necessary forms

##### Module 2

- Limitations in pattern design set by the product
- Creating one's own collection, using image processing programmes as a tool in pattern design

##### Module 3

- Aim (entrepreneur's/event's) of advertising products and considering it in one's own designing

##### Fashion Designing Module 1

- Basics in clothing and collection designing, industrial clothing design and production process, impact of the target group, needs for use and trends on designing
- Structure of clothing, materials and working with prototypes
- Contracts associated with freelance work and scheduling a designing project

##### Module 2

- Ecological consumers and materials and sustainable development in clothing production
- Criteria for sustainable development in the work of a designer
- Using image processing programmes as a tool in fashion designing

##### Module 3

- Introducing one's own fashion collection into the market, pricing products, producing marketing material, sub-contracting

#### Module 4: 5 cr

- Designing one's own collection for an external customer
- Tutorial guidance in the spring of the fourth academic year

#### *Learning Methods*

Lectures, assignments and working in workshops

#### *Assessment*

- Grading based on a scale of 1–5
- Process evaluation
- Portfolios

## Graphic Design, 20 op KH14VOGRA (study unit)

### *Lecturers*

Various lecturers and experts

### *Objectives*

Students will learn about the design and manufacture of various types of medals and the principles pertaining to the art of medals, reliefs and decorative art. Students will acquire advanced knowledge of the area they choose and create a medal or collection of medals. The Art of Medals Modules are suitable for all lines of specialisation. Module I: Decorative Art (5 cr)

- History and expression of decorative and relief art
- Sketching techniques and means of expression
- Ornamentation and pattern layouts

#### Module II: Art of Medals and Production Reqniques (5 cr)

- History and expression of the art of medals
- Sketching and designing medals
- Creating medals and refining techniques, excursions and experiments with materials

#### Module III: Medal Design by Commission (5cr)

- Commissions, creating drafts of medals and product development
- Designing and modelling medals
- Computer-aided prototyping and having models made

#### Module IV: Medal Design and Publicity (5cr)

- Generating ideas and planning a exhibition project
- Planning and carrying out an exhibition
- Advertising and marketing an exhibition

### *Content*

#### Art of Medals Module I

- Principles of decorative art, ornamentation and relief art
- Exercises to learn sketching techniques

#### Module II

- Art of medals
- Sketching and creating topics for medals
- Preparation techniques, materials and production
- Field trips and demonstrations

#### Module III

- Client-oriented work
- Determining what the client wants (commission), drafting, generating ideas and evaluation
- Manual and computer-aided work, workshops for production and/or having medals made

#### Module IV

- Publicity and planning an exhibition
- Putting on an exhibition

### *Learning Methods*

- Lectures
- Assignments
- Working in workshops

### *Assessment*

- Process assessment
- Portfolio

Grading is based on a scale of 1 to 5.

## **Furniture design, 20 op KH14VOKAL (study unit)**

### *Lecturers*

Jaakko Purtaanen, MA

### *Objectives*

Module 1: 5 cr

- Modern, decorative woodwork
- Methods for working with different materials
- Lamp design

Module 2: 5 cr

- Utilising new technology
- Industrial production
- Advancing skills in fine woodworking

Module 3: 10 cr

- 3D and virtual environments
- Character and miniature models
- Virtual prototyping

### *Content*

Module 1

- Water cutters
- Working with prototypes
- Materials

Module 2

- Innovation on technology's terms
- Rapid prototyping
- Character models and miniature models
- Working with CAD

Module 3

- Own project in which knowledge of materials is used in the virtual environment
- Testing a prototype in the virtual environment
- Making a prototype

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments and independent study

### *Assessment*

Grading based on a scale of 1–5.

## **FREE CHOICE STUDIES, 8 op KH14DD (study entity)**

- Objectives: Students will expand their professional knowledge. Elective courses may be integrated into professional projects. Each year, students choose elective courses amounting to a total of 15 credits. See also courses from other units.
- Requirements and assessment: Each course has its own requirements and methods of assessment. Courses are assessed either on a pass/fail basis or they are graded on a scale of 1–5.

## **PRACTICAL TRAINING, 30 op**

### **KH14TYHA (study entity)**

Lecturers: Jaakko Purtaanen, Merja Juppo, and Hannu Ruokonen Objectives: Students will be competent in working in a professional manner in various work communities. They will acquire skills needed in the working world, e.g. an entrepreneurial attitude, innovativeness, designing skills, networking, and efficiency. The practical training is divided into three years. Training in the spring of the first year (5 cr) concentrates on customer service in a designing company. Training in the second year involves choosing a company, community or project where students can carry out the visualization of an event. The last period of training (third year, autumn) provides students with advanced training in designing (15 cr) in a company according to the students' personal career plan either in Finland or abroad. Students also have practical training (5 cr) during the summer of their third year of studies. The aim is to deepen their knowledge of the working world and to apply that knowledge in their final thesis. Content:

- Carrying out one's own career plan
- Participation in coaching for practical training
- Familiarisation with the job opportunities and business activities in one's own field
- Part of the training may be completed in one's own company
- Goals of the training must be approved by the supervisor before choosing a place to do the training
- 3 copies of the practical training contract in writing
- Company presentation and report about the practical training

Literature/Study material: To be announced. Learning methods: Students learn the ways of the working world through real-life, practical situations in the work community. Assessment: Pass/fail

## **THESIS, 15 op**

### **KH14ONT (study entity)**

Lecturers:

- Senior lecturers
- Teachers in the field
- Communications teacher

Objectives: The thesis is a process leading to a university of applied sciences degree, which is evidence of students' professional readiness and maturity. Students are required to use creative problem-solving skills and to familiarise themselves with the use of methodological and technological tools. There are separate instructions for writing the final thesis where the thesis requirements and other related issues are explained. Contents: Product development process, material productions, written report Previous studies: A minimum of 180 credits must be completed and the topic of the thesis must be approved by the thesis supervisor. Assessment: Grading based on a scale of 1–5 according to Seinäjoki UAS's general assessment criteria for theses.

# Degree Programme in Food Processing and Biotechnology (In Finnish)

## SPECIALISATIONS

Food Processing and Biotechnology  
Process and Automation Technology

## QUALIFICATION AWARDED

Bachelor of Science in Engineering Technology (BEng)

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The degree programme consists of 240 ECTS and the studying time is approximately four years. The studies consist of basic studies, professional studies, free choice studies and modules of food technology, biotechnology, process technology and entrepreneurship. Practical work training and the final thesis are essential parts of the degree programme. The studies and lectures are organised into study units or courses, which are grouped into module structures relating to the subject area. Study units or courses are compulsory, alternative or free choice studies. The specialisation modules include either process and automation technology or food processing and biotechnology.

The professional development of a student studying food processing and biotechnology is based on well-founded technical and scientific expertise, critical thinking, problem-solving abilities, and the ability to work responsibly and together with others. The constructivist theory of learning is emphasised in the degree programme because students are encouraged to learn to combine theory with practice and to be able to reinforce their expertise based on previously learned knowledge and experiences. The programme offers students a strong foundation for professional development after their studies also.

In addition to traditional lectures, learning also involves practical laboratory exercises, assignments and calculations where students learn to understand the relationships between concepts. Small-scale reports and problem-solving projects pertaining to phenomena in the working world provide students with innovative and meaningful learning experiences. Practical training lasting the spring semester, visits to companies, and guest lecturers from area companies supplement the teaching and learning experience.

## PROFILE OF THE PROGRAMME

The food processing and biotechnology industries are quickly globalising, and they are also competitive on the international level. The food processing industry in Finland is the most competitive of all of the branches of industry in the country. Finnish expertise in the field is among the best in the world, and the industry will continue to function in Finland despite the globalisation of production activities.

Engineers in the fields of food processing and biotechnology possess strong theoretical and practical expertise. Engineering graduates have command of the processing of biological material and knowledge of the special requirements for handling biological material, technical processing operations, and of the overall processes within their field. Professional expertise is based on solid scientific and technological know-how. The ability to follow the intense development in the field in Finland and abroad is a central challenge in coping in the working world. Significant factors contributing to change in the field are globalisation and the automation of production.

## KEY LEARNING OUTCOMES

### *Competence in living and other biological material*

A Bachelor of Engineering

- \* recognises the distinctive characteristics of biological material.
- \* understands the function of living cells.

### *Competence in bioprocesses*

A Bachelor of Engineering

- \* is familiar with the unit operations employed in the field.
- \* is proficient in bio and food technology processes and the special demands on them as regards the materials to be processed.
- \* Understanding of production systems as a whole.
  - process engineering

- bio and food processes
- production systems

#### *Competence in safety and quality control*

A Bachelor of Engineering

- \* is able to identify and manage the risks to quality and hygiene involved in production processes.
- \* understands the significance of quality control work in production and as regards products.
- \* is familiar with the field-related legislation and the application of it for example in controlling his/her own products.
  - hygiene
  - legislation
  - quality control

#### *Technological and economical competence*

A Bachelor of Engineering

- \* commands market-based operations with consideration for sustainable development.
- \* understands the distinctive characteristics of field-related production economics, e.g. in the production of daily consumer goods.
- \* is able to work in a market-oriented manner.

#### *Mathematical and scientific competence*

A Bachelor of Engineering

- \* commands field-related mathematics and physics.
- \* commands field-related chemistry and biology.
- \* commands skills in biochemistry.
- \* commands adequate IT skills.

#### *Competence in leadership*

A Bachelor of Engineering

- \* is able to perform managerial tasks.

## **OCCUPATIONAL PROFILES**

Engineers in the fields of food processing and biotechnology work in key positions in related industry. Graduates from the programme may work as production supervisors, in quality control, product development or designing in the food processing industry or industrial services. They may also work for municipalities or the government as inspectors or educators. Typical job titles for engineers in the fields of food processing and biotechnology are supervisor, product developer, production designer, production supervisor, health inspector, quality controller, product manager, product development manager, or production manager. The job situation for engineers in the field is stable and the future looks bright.

## **ACCESS TO FURTHER STUDIES**

Students who have completed this programme are eligible to continue on to second-cycle higher education studies. For second-cycle studies in universities of applied sciences in Finland, three years' work experience is also required (University of applied sciences act 351/2003, in Finnish)

## **COURSE STRUCTURE**

The courses in the degree programme are available at BIOEL 2009, 240 cr (1.9.2009)

## **EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

## **CONTACT PERSONS**

Head of degree programme: Mr Jarmo Alarinta, tel. +358 40 830 2450, e-mail: jarmo.alarinta@seamk.fi

Student counsellor: Ms Merja Kyntäjä, tel. +358 40 830 4164, e-mail: merja.kyntaja@seamk.fi

ECTS departmental coordinator / International coordinator: Mr Tapio Pihlajaniemi, tel. +358 40 830 3966, e-mail: tapio.pihlajaniemi@seamk.fi

# Degree Programme in Food Processing and Biotechnology (In Finnish) (1.9.2009)

## BIOEL 2009 (Food Engineering ©Meat and Prepared Food Technology)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KC03AE10	<b>BASIC STUDIES</b>					<b>57</b>
KC03AE10015	Introduction to technical studies	x				3
KC03AEKIVI	<b>Languages and communication</b>					<b>18</b>
KC03AE10027	Communication and negotiation skills 1	x				3
KC03AE10028	Communication and negotiation skills 2			x		3
KC03AE10031	Swedish	x				3
KC03AE10041	English 1	x				3
KC03AE10051	English 2		x			3
KC03AE10061	English 3				x	3
KC03AEMATE	<b>Mathematics</b>					<b>16</b>
KC03AE10083	Algebra and trigonometry	x				4
KC03AE10084	Vectors and matrices	x				3
KC03AE10085	Differential and integral calculus	x				3
KC03AE10086	Differential equations and business mathematics		x			3
KC03AE10087	Statistics		x			3
KC03AEFYSI	<b>Physics</b>					<b>12</b>
KC03AE10088	Mechanics	x				3
KC03AE10089	Thermal and electrical physics	x				3
KC03BE40036	Measuring techniques		x			3
KC03AE10093	Physics laboratory works		x			3
KC03AETITE	<b>Information technology</b>					<b>8</b>
KC03AE10172	Office applications	x				3
KC03BE20061	CAD engineering drawing	x				5
KC03BE20	<b>COMMON PROFESSIONAL STUDIES</b>					<b>73</b>
KC03BEKEMIA	<b>Chemistry</b>					<b>18</b>
KC03BE20102	Inorganic and technical chemistry	x				5
KC03BE20112	Chemistry laboratory works	x				5
KC03BE20120	Organic chemistry	x				3
KC03BE30051	Food chemistry		x			5
KC03BEBIOT	<b>Biotechnology</b>					<b>9</b>
KC03BE20152	Microbiology	x				3
KC03BE20600	Biochemistry		x			3
KC03BE50032	Bioprocess technology			x		3
KC03BEELTEK	<b>Food engineering</b>					<b>12</b>
KC03BE20126	Basics of food technology	x				3
KC03BE30061	Food processes				x	5
KC03BE30032	Food hygiene and legislation	x				4



KC03BELATE	<b>Food equipments and operations</b>								<b>8</b>
KC03BE20073	Machine engineering and safety				x				3
KC03BE40024	Fluid technology and heat transfer technology			x					5
KC03BETUTE	<b>Food processing</b>								<b>14</b>
KC03BE20089	Maintenance						x		3
KC03BE20091	Food plant simulation				x				3
KC03BE40051	Food processing plant design				x				3
KC03BE20092	Production management				x				2
KC03BE40013	Packaging technology			x					3
KC03BEAUTO	<b>Production automation</b>								<b>6</b>
KC03BE40023	Basics of automation			x					3
KC03BE20162	Process automation			x					3
KC03BEESIM	<b>Leadership</b>								<b>3</b>
KC03BE20030	Management					x			3
KC03BEYMP	<b>Environment</b>								<b>3</b>
KC03BE20170	Sustainable development						x		3
KC03CE10	<b>PRODUCT DEVELOPMENT</b>								<b>10</b>
KC03BE60011	Product development								6
KC03CE60030	Food industry quality management								4
KC03CE20	<b>FOOD PRODUCTION</b>								<b>10</b>
KC03CE40322	Food processing system design								6
KC03CE40240	Robotics								4
KC03CE30	<b>GENERAL FOOD TECHNOLOGY</b>								<b>30</b>
KC03CE60162	Dairy technology 1								5
KC03CE60163	Dairy technology 2								2
KC03CE60190	Cereal technology 1								5
KC03CE60201	Cereal technology 2								2
KC03CE60140	Meat technology 1								5
KC03CE60212	Vegetable and berry products								3
KC03CE60213	Project studies in food technology								8
KC03CE50	<b>MEAT AND PREPARED FOOD TECHNOLOGY</b>								<b>30</b>
KC03CE60142	Meat technology 1								5
KC03CE60150	Meat technology 2								5
KC03CE60143	Meat technology 3								5
KC03CE60144	Prepared food technology								5
KC03CE60145	Project studies in meat and prepared food technology								10
KC03CEY10	<b>ENTREPRENEURSHIP MODULE</b>								<b>15</b>
KC03CY10010	Human resources management						x		4
KC03CY20032	Project leadership				x				5
KC03BY10010	Business economics							x	3
KC03CY10040	Marketing							x	3
KC03EE10	<b>PRACTICAL TRAINING</b>								<b>30</b>
KC03FE80	<b>FINAL THESIS</b>								<b>15</b>

KC03DE90	<b>FREE CHOICE STUDIES</b>	<b>10</b>
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## Study Descriptions

### **BASIC STUDIES, 57 op** **KC03AE10 (study entity)**

Basic Studies provides students with the fundamental knowledge and methods necessary in utilizing a scientific approach to thinking, which can be applied to their studies and future career.

### **Introduction to technical studies, 3 op** **KC03AE10015 (study unit)**

#### *Lecturers*

- Jarmo Alarinta
- Pasi Selin

#### *Objectives*

Students will possess knowledge concerning study techniques, be familiar with their chosen field of engineering, and understand the fundamentals of data acquisition and research methods. Also, students will possess knowledge of the history and ethics of their chosen area of technology. Upon completion of the course, students will be aware of their own learning style(s) and understand the significance of their profession. They will be familiar with channels of information acquisition, the principles of scientific research, and know how to use tools for acquiring information. They will know how to write a research report and be familiar with the basic ethics of engineering.

#### *Content*

- Studying and learning
- Significance of one's professional field to the national economy
- Field-related labour organisations
- History of engineering
- Library and information services
- Databases
- Finding information from databases and the Internet
- Scientific research
- Research methods

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments and independent study

#### *Assessment*

Exam and approved assignments

#### *Languages of Instruction*

Finnish

### **Languages and communication, 18 op** **KC03AEKIVI (study entity)**

The Language and Communication Module provides students with the skills they need to communicate with representatives of their own professional field and with representatives of other professional fields. Students will be competent in various situations of communication in both Finnish and a foreign language.

### **Communication and negotiation skills 1, 3 op** **KC03AE10027 (study unit)**

#### *Lecturers*

Helena Mikkilä

#### *Objectives*

Students will be competent in communicating consistently and intelligibly, producing texts for the learning and work

environment, as well as in functioning at official meetings. They will be aware of the significance of communication in the working world. Furthermore, students will know how to evaluate their skills in Finnish and communication and be willing to develop their skills as part of their professional expertise.

### *Content*

- Basic concepts of communication
- Language maintenance
- Document layouts and standards
- Business correspondence
- Bulletins
- Everyday communication at the workplace
- Job application process and texts needed to apply for a job
- Basics in conference technology and documents associated with meetings

### *Literature / Study Material*

Kauppinen, A., Nummi, J. & Savola, T. 2005. Tekniikan viestintä. Kirjoittamisen ja puhumisen käsikirja. 4th/5th edition. Edita.

### *Learning Methods*

- Pair and group work
- Exercises pertaining to spoken skills
- Written assignments

### *Assessment*

- Active participation in lessons and assignments
- Written assignments
- Portfolio
- Exam

### *Languages of Instruction*

Finnish

## **Communication and negotiation skills 2, 3 op KC03AE10028 (study unit)**

### *Lecturers*

Helena Mikkilä, MA

### *Objectives*

Students will be competent in communicating and interacting appropriately in various situations in the working world. They will be able to communicate clearly and convincingly. Students will possess the readiness needed to write academic texts.

### *Content*

- Instructive texts
- Proposals
- Reports
- Explorative writing
- Thesis instructions
- Evaluating sources of information
- Compiling a bibliography
- Literary work
- Argumentation
- Goal-oriented discussions
- Presentation skills for the working world
- Seminars

### *Literature / Study Material*

- Kauppinen A., Nummi J. & Savola T. 2005. Tekniikan viestintä. Kirjoittamisen ja puhumisen käsikirja. 4th/5th edition. Edita.
- Instructions for Writing a Thesis. Seinäjoki University of Applied Sciences

### *Learning Methods*

- Work in pairs and in groups
- Spoken exercises
- Written assignments

#### *Assessment*

- Active participation during lessons
- Written and spoken exercises
- Literary work and presentation of it

#### *Languages of Instruction* Finnish

### **Swedish, 3 op** **KC03AE10031 (study unit)**

*Lecturers*  
Riikka Ala-Sankila, MA

#### *Objectives*

Upon completion of the course, students will be competent in using Swedish in their professional field in the working world. They will also be competent in interactive communication and in collecting and efficiently utilizing information specific to their field.

#### *Content*

The topics discussed in the course include education, job applications and work, the work environment and society, customer contacts, general texts, and field-related texts, as well as the terminology contained therein.

#### *Literature / Study Material*

- Lehto, Teija. 2003. Koppling. Svenska för ingenjörer. WSOY.
- Other material as indicated during the course

#### *Learning Methods*

Lectures, listening comprehension, oral exercises, and written assignments in pairs, small groups and independently.

#### *Assessment*

Active participation in the lectures, approved interim and final exams

#### *Languages of Instruction* Finnish and Swedish

### **English 1, 3 op** **KC03AE10041 (study unit)**

*Lecturers*  
Riikka Ala-Sankila, MA

#### *Objectives*

Students will develop their oral and written language skills. Upon completion of the course, students will be able to explain in English the type of education and work experience they have. They will also be familiar with the job application process and know how to write a job application/curriculum vitae in English. In addition, students will understand the basic vocabulary in texts associated with the fields of food processing and biotechnology. Moreover, they will be competent in using this vocabulary in writing and speaking.

#### *Content*

- Effective communication
- Data acquisition
- Use of the Internet
- Job applications and CVs
- Field-related texts
- Informal oral presentation
- Texts in the course book

#### *Literature / Study Material*

- Huhta, Marjatta. 2000. Connections: Communication Guidelines for Engineers. Edita.

- Field-related texts and other study material

#### *Learning Methods*

Oral and written exercises in pairs, groups and individually

#### *Assessment*

- Active participation in lectures and exercises
- Oral presentation
- Written exam
- Other assignments required during the course

#### *Languages of Instruction*

Finnish and English

### **English 2, 3 op KC03AE10051 (study unit)**

#### *Lecturers*

Riikka Ala-Sankila, MA

#### *Objectives*

The course will deepen the oral and written language skills of the students, including written communication and business correspondence. Additionally, students will acquaint themselves with and understand the more profound professional vocabulary in texts associated with the fields of food processing and biotechnology. They will also be competent in using this vocabulary in writing and speaking.

#### *Content*

- Basic business correspondence
- Some business terminology
- Acquiring information from texts pertaining to automobile and logistics technology
- Oral and written summaries
- Field-related oral presentation
- Texts from the course book
- Business exhibitions

#### *Literature / Study Material*

- Huhta, Marjatta. 2000. Connections: Communication Guidelines for Engineers. Edita.
- Field-related texts and other study material

#### *Learning Methods*

Oral and written exercises and assignments in pairs, groups and individually

#### *Assessment*

- Active participation in lectures and exercises
- Oral presentation
- Written exam
- Other assignments required during the course

#### *Languages of Instruction*

Finnish and English

### **English 3, 3 op KC03AE10061 (study unit)**

#### *Lecturers*

Riikka Ala-Sankila, MA

#### *Objectives*

The course will enforce and maintain the oral and written language skills students have acquired at an earlier time. The central themes of the course include exercises for writing abstract texts, procedures for holding meetings and negotiations, and vocabulary. Students will also be familiar with comprehensive, professional texts associated with the food processing and biotechnology industries, and they will be competent in using professional vocabulary both in writing and speaking.

*Content*

- Reading and writing technical texts
- Writing a thesis abstract
- Presentations
- Conferences
- Interviews
- Field-related texts
- Texts from the course book

*Literature / Study Material*

- Huhta, Marjatta. 2000. Connections: Communication Guidelines for Engineers. Edita.
- Field-related texts and other study material

*Learning Methods*

Oral and written exercises and assignments in pairs, groups and individually

*Assessment*

- Active participation in lectures and exercises
- Oral presentation
- Written exam
- Other assignments required during the course

*Languages of Instruction*

Finnish and English

## **Mathematics, 16 op**

### **KC03AEMATE (study entity)**

The Mathematics Module provides students with the mathematical readiness they need to solve mathematical problems in their Professional Studies and the working world. They will understand that mathematics are a basic tool with which natural phenomena can be modelled.

## **Algebra and trigonometry, 4 op**

### **KC03AE10083 (study unit)**

*Lecturers*

Heikki Kokkonen, LA

*Objectives*

Students will acquire basic knowledge in mathematics needed for their studies in technology.

*Content*

- Literal calculations
- Simplification of algebraic expressions
- Equations
- Trigonometry

*Literature / Study Material*

- Antti Majaniemi: ALGEBRA I
- Antti Majaniemi: GEOMETRIA

*Learning Methods*

- Lectures, exercises and independent study
- NB! 80 % participation required in the lectures

*Assessment*

Two mid-term exams or final exam and points from completed calculations

*Languages of Instruction*

Finnish

## Vectors and matrices, 3 op KC03AE10084 (study unit)

### *Lecturers*

Heikki Kokkonen, LA

### *Objectives*

Students will acquire knowledge in vectors and be competent in calculating matrix algebra and analytic geometry. They will need this knowledge in the Professional Studies which requires the command of complex technical–mathematical knowledge.

### *Content*

- Vectors
- Matrix algebra
- Technological applications
- Analytic geometry

### *Literature / Study Material*

- Antti Majaniemi: ALGEBRA I
- Antti Majaniemi: GEOMETRIA

### *Learning Methods*

Lectures, calculations and independent study

### *Assessment*

- Two interim exams or a final exam
- Points from completed exercises

### *Prerequisites*

- Algebra
- Trigonometry

### *Languages of Instruction*

Finnish

## Differential and integral calculus, 3 op KC03AE10085 (study unit)

### *Lecturers*

Heikki Kokkonen, LA

### *Objectives*

Students will acquire basic knowledge of one–variable differential calculus and integral calculus. This knowledge is needed in their Professional Studies, which require students to have a command of complex technical–mathematical knowledge.

### *Content*

One–variable differential and integral calculations

### *Literature / Study Material*

- Antti Majaniemi: MATEMATIIKKA I
- Antti Majaniemi: MATEMATIIKKA II

### *Learning Methods*

Lectures, calculations, and independent study

### *Assessment*

Two mid–term exams or final exam and points from completed calculations

### *Prerequisites*

- Algebra
- Trigonometry

*Languages of Instruction*  
Finnish

## **Differential equations and business mathematics, 3 op KC03AE10086 (study unit)**

*Lecturers*  
Juhani Paananen, MSc (Eng.) and MA

*Objectives*  
Students will acquire basic knowledge of differential equations and business mathematics. This knowledge is needed in their Professional Studies, which requires students to have a command of complex technical–mathematical knowledge.

*Content*

- Differential equations
- Business mathematics

*Literature / Study Material*

- Antti Majaniemi: MATEMATIIKKA II – Differentiaali- ja integraalilaskentaa sekä differentiaaliyhtälöitä
- Leila Karjalainen: OPTIMI – Matematiikkaa talouselämän ammattilaisille.

*Learning Methods*  
Lectures, calculations, and independent study

*Assessment*  
Two mid–term exams or final exam and points from completed calculations

*Prerequisites*

- Algebra
- Trigonometry
- Differential and integral calculus

*Languages of Instruction*  
Finnish

## **Statistics, 3 op KC03AE10087 (study unit)**

*Lecturers*  
Juhani Paananen, MSc (Eng.) and MA

*Objectives*  
Students will gain basic knowledge of statistics, statistical methods, designing experiments, and mathematical software. They will need this knowledge in their Professional Studies, which require the command of complex technical–mathematical knowledge.

*Content*

- Basics of statistics
- Statistical methods
- Design of experiments
- Mathematical software

*Literature / Study Material*  
Antti Majaniemi: MATEMATIIKKA IV – Tilastot ja todennäköisyys

*Learning Methods*  
Lectures, calculations and independent study

*Assessment*

- Two interim exams or a final exam
- Points from completed calculations

*Prerequisites*



- Algebra
- Trigonometry

*Languages of Instruction*  
Finnish

## **Physics, 12 op** **KC03AEFYSI (study entity)**

The Physics Module provides students with insight into natural phenomena from the point of view of physics. Understanding the laws of physics provides a framework for designing and creating new applications.

## **Mechanics, 3 op** **KC03AE10088 (study unit)**

*Lecturers*  
Pasi Junell, PhD (Tech.)

*Objectives*  
Students will acquire basic knowledge of physics for engineering. The course introduces a foundation for the comprehension of demanding technical information and prepares the students for technical expertise in their profession.

*Content*

- Kinematics
- Newton's laws
- Work, power, energy, impulse
- Linear momentum
- Rotational movement
- Mechanics of solids and fluids

*Literature / Study Material*

- Hautala, Peltonen. Insinöörin (AMK) Fysiikka osa I. Lahden Teho–Opetus Oy
- Lecture notes

*Learning Methods*  
Lectures, homework and calculations: minimum attendance is 80 %.

*Assessment*  
Written course–end examination

*Languages of Instruction*  
Finnish

## **Thermal and electrical physics, 3 op** **KC03AE10089 (study unit)**

*Lecturers*  
Pasi Junell, PhD (Tech.)

*Objectives*  
Students will acquire basic knowledge of physics for engineering. The course introduces a foundation for the comprehension of demanding technical information and prepares the students for technical expertise in their profession.

*Content*

- Basics of thermal physics and electrostatics
- Direct–current and basics of alternating current

*Literature / Study Material*

- Hautala, Peltonen: Insinöörin (AMK) Fysiikka osat I ja II. Lahden Teho–Opetus Oy.
- Lecture notes

*Learning Methods*  
Lectures, homework and calculations

*Assessment*

Written course–end examination

*Prerequisites*

Mechanics

*Languages of Instruction*

Finnish

**Measuring techniques, 3 op  
KC03BE40036 (study unit)**

*Lecturers*

Pasi Junell, PhD (Tech.)

*Objectives*

Students will understand measurements used in the food processing industry and know how to use the sensors used in making measurements. They will also be able to identify the more common dimensional errors and what causes them.

*Content*

The course involves the discussion of process technology measurements and their operational principles.

*Literature / Study Material*

To be announced during the lectures.

*Learning Methods*

Lectures, assignments and seminar work in groups

*Assessment*

Examination and approved assignments and seminar work

*Prerequisites*

Basics in Automation

*Languages of Instruction*

Finnish

**Physics laboratory works, 3 op  
KC03AE10093 (study unit)**

*Lecturers*

Pasi Junell, PhD (Tech.)

*Objectives*

This course provides students with basic knowledge in experimental measurements, processing results and reporting. Applications in experimental physics for various fields of engineering will also be introduced.

*Content*

Laboratory experiments from different areas of physics and engineering.

*Literature / Study Material*

Instructions for exercises in physics (Seinäjoki University of Applied Sciences, School of Engineering)

*Learning Methods*

Laboratory work (minimum 90 % attendance required) and written reports

*Assessment*

Approved reports and written examination based on the lab work

*Prerequisites*

Mechanics

*Languages of Instruction*

Finnish

## **Information technology, 8 op KC03AETITE (study entity)**

The Information Technology Module provides students with the skills they need to use the university's computers and related instruments. They will learn about the structure of personal computers and how they work such that they will be able to keep their own computers up to date. Students will be competent in utilising computers extensively in various engineering tasks.

## **Office applications, 3 op KC03AE10172 (study unit)**

### *Lecturers*

Hilkka Niemelä, MA

### *Objectives*

Upon completion of the course, students will be familiar with the more significant types of software and IT systems used by students in the university, and they will know how to use these systems with ease.

### *Content*

- SeAMK's IT systems (Intranet, Student Register, online learning environment)
- Online services (e-mail and websites)
- Application software (word processing, spreadsheets, graphics)

### *Literature / Study Material*

- Guidebooks for software
- Online learning material

### *Learning Methods*

Lectures, assignments, and independent study

### *Assessment*

Exam and approved assignments

## **CAD engineering drawing, 5 op KC03BE20061 (study unit)**

### *Lecturers*

Jukka Aarnio, DSc (Tech.)

### *Objectives*

Students will learn to draw and dimension machines and machine components manually and using a computer according to mechanical drawing standards while taking into consideration manufacturing methods. They will be competent in making and reading process and flow charts.

### *Content*

- Mechanical drawing
- Symbols used for various devices
- 2D and 3D modelling
- Process and flow charts

### *Literature / Study Material*

- Autio: Koneenpiirustus
- Instruction manual for CAD programme

### *Learning Methods*

Lectures and assignments

### *Assessment*

Examination and assignments: 60/40

## **COMMON PROFESSIONAL STUDIES, 73 op KC03BE20 (study entity)**

Common Professional Studies provide students with a foundation of knowledge that they can use later when they specialise. Skills and applications in science and technology with regard to the field are discussed extensively during the studies.

## **Chemistry, 18 op** **KC03BEKEMIA (study entity)**

The Chemistry Module provides students with skills to examine food stuffs on the micro-level. Understanding the molecule level provides a basis for examining products and production methods from a broader perspective.

## **Inorganic and technical chemistry, 5 op** **KC03BE20102 (study unit)**

### *Objectives*

Students will learn the main aspects of general and inorganic chemistry as well as safety when working with chemicals.

### *Content*

- Atoms and chemical binding
- Quantity of material
- State of substances
- Chemical reaction equations
- Acids and alkali
- Analysis methods in chemistry
- Safety when handling chemical

### *Literature / Study Material*

- Anttila, Karppinen, Leskelä, Mölsä and Pohjakallio: Tekniikan kemia
- Lecturer's material

### *Learning Methods*

Lectures, assignments, and calculations

### *Assessment*

One final examination or two interim tests + assignments

### *Prerequisites*

Upper secondary school or vocational school chemistry

### *Languages of Instruction*

Finnish

## **Chemistry laboratory works, 5 op** **KC03BE20112 (study unit)**

### *Lecturers*

Merja Kyntäjä, BSc (Food Industry)

### *Objectives*

Students will learn to work in a chemistry laboratory safely and carefully, become familiar with various methods of analysis through practical work, and learn to calculate and write reports.

### *Content*

- Titration methods, ionic exchanges, spectrophotometric methods and chromatographic methods in theory and in practice
- Writing reports and calculating calculations in analytic chemistry

### *Literature / Study Material*

Assignment instructions

### *Learning Methods*

Laboratory assignments, calculations, and seminar

### *Assessment*

Approved reports, laboratory work and final seminar

*Prerequisites*

Inorganic and Technical Chemistry (completed before or taken simultaneously with this course)

*Languages of Instruction*

Finnish

**Organic chemistry, 3 op  
KC03BE20120 (study unit)**

*Lecturers*

Marjatta Salminen, MSc (Eng.)

*Objectives*

Students will be able to recognise organic compounds, and they will gain knowledge of the types of reactions of the main compound categories. They will also practise working in a chemistry laboratory.

*Content*

- Organic compounds and nomenclature (IUPAC)
- Types of reactions
- Detergents, oil industry, plastics and paints

*Literature / Study Material*

- Jokela and Niinistö: Orgaanisen kemian perusteet ja sovellukset. Otatieto.
- Assignment instructions

*Learning Methods*

Lectures, laboratory work and assignments

*Assessment*

Examination and reports

*Prerequisites*

Inorganic and Technical Chemistry

*Languages of Instruction*

Finnish

**Food chemistry, 5 op  
KC03BE30051 (study unit)**

*Objectives*

Students will acquire knowledge food nutrients and the changes that take place in food due to processing and storage.

*Content*

The topics discussed in the course include food nutrients such as proteins, carbohydrates, and fats and how they behave during the processing of food. Students will also be familiarised with functional foods and evaluations using the senses.

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, laboratory assignments, and exercises

*Assessment*

Exam and report

*Prerequisites*

- Organic Chemistry
- Food Technology I (for upper secondary school graduates)

*Languages of Instruction*

Finnish

## **Biotechnology, 9 op KC03BEBIOT (study entity)**

Biotechnological applications are an essential part of the production of foodstuffs. As a sharply growing field, biotechnology offers new types of production techniques for traditional food industry. Furthermore, biotechnological methods may be applied in other areas of industry.

## **Microbiology, 3 op KC03BE20152 (study unit)**

### *Lecturers*

Jaana Latvala, PhD

### *Objectives*

Students will gain knowledge of various types of microbes and their living conditions. They will also become familiar with the concepts associated with microbiology.

### *Content*

- Microbes, morphology and reproduction, growth curves, specific growth rate, living conditions and prevention of growth
- Bacteria, yeast, fungi, moulds, algae, microbes and viruses
- Common bacteria causing food spoilage
- Microbes used in food production
- Hygiene and sterilisation
- Aseptic work
- Microbe cultivation
- Dilution

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Lectures and laboratory work

### *Assessment*

Journal and exam

### *Languages of Instruction*

Finnish

## **Biochemistry, 3 op KC03BE20600 (study unit)**

### *Objectives*

Students will understand the chemistry of living cells and the significance and structure of various biopolymers such as DNA, RNA, proteins and carbohydrates.

### *Content*

The course comprises the fundamentals of biochemistry and metabolism, nucleotides and nucleic acids, aminoacids, proteins, carbohydrates, lipids, genes and their replication, and the more common instruments used in biochemistry.

### *Literature / Study Material*

Turpeenoja: Biokemiaa

### *Learning Methods*

Lectures and assignments

### *Assessment*

Examination

## **Bioprosesstechnology, 3 op KC03BE50032 (study unit)**

### *Objectives*

Upon completion of the course, students will possess basic knowledge of biotechnical production processes, the instruments involved in those processes, measurements, modelling, and post-processing.

### *Content*

- Industrial microbes, mutations, gene technology
- Practical applications in bio-processing technology
- Methods and instruments used in bioreactor culturing and post-processing
- Absorption mobilisation and cell recycling techniques
- Chemostats
- Common types of bioreactors, measuring them, modeling and adjustments
- Special issues to be addressed in biotechnology, e.g. occupational safety, quality control systems, patents and ethics

### *Literature / Study Material*

Aittomäki, Eerikäinen, Leisola, Ojamo, Suominen & von Weymarn 2002. Bioprosessiteknikka. WSOY. Porvoo

### *Learning Methods*

- Lectures
- Field trips to various factories
- Laboratory work

### *Prerequisites*

Biochemistry

## **Food engineering, 12 op KC03BEELTEK (study entity)**

The Food Technology Module connects the Degree Programme in Food Processing and Biotechnology to the Food Processing Industry. Understanding the processes therein and safety issues is a vital part of the expertise of specialists in the food processing industry in the future as well.

## **Basics of food technology, 3 op KC03BE20126 (study unit)**

### *Lecturers*

Marjatta Salminen, MSc (Eng.)

### *Objectives*

Students will be familiar with the structure of Finland's food processing industry and the more significant methods of producing food stuffs.

### *Content*

- Significance of the food processing industry to Finland's economy
- History and chief industrial enterprises
- General outline of the following: vegetable and fruit products, meat products, cereal products, dairy products, edible fats, sugars, drinks, and confectionery

### *Literature / Study Material*

Saarela, Hyvönen, Määttä, von Wright: Elintarvikeprosessit. Savonia.

### *Learning Methods*

Lectures and seminars

### *Assessment*

Successfully completed exam

### *Prerequisites*

Compulsory for those who have not completed corresponding studies in a vocational institution.

### *Languages of Instruction*

Finnish

## **Food processes, 5 op KC03BE30061 (study unit)**

### *Lecturers*

Marjatta Salminen, MSc (Eng.)

### *Objectives*

Students will acquire knowledge of the factors that effect the preservation of food and of how food preservation is improved through industrial processing.

### *Content*

- Refrigeration and freezing
- Pasteurisation and sterilisation
- Drying
- Irradiation
- Cooking
- Minimal processing
- Optimising processes
- Special features of food packaging

### *Literature / Study Material*

- Fellows: Food Processing Technology, Woodhead
- Lecturer's material

### *Learning Methods*

- Lectures
- Calculations
- Laboratory work (attendance compulsory)

### *Assessment*

The grade for the course comprises two parts: an exam (65 %) and reports on laboratory work (35 %). Both parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

- Food Hygiene and Legislation
- Food Chemistry
- Food Technology I

### *Languages of Instruction*

Finnish

## **Food hygiene and legislation, 4 op KC03BE30032 (study unit)**

### *Lecturers*

Merja Kyntäjä, BSc (Food Eng.)

### *Objectives*

Students will learn the principles of producing safe, hygienic food, the risks associated with food and the principles of hygiene, as well as the principles of self-monitoring and HACCP. In addition, students will learn the more important legislation pertaining to the food industry, and they will know how to use collections of laws and decrees.

### *Content*

Topics discussed in the course include personal hygiene and working hygienically, pathogenic agents spread by foodstuffs, and self-monitoring and HACCP. The course also involves discussion of the more essential laws, decrees and decisions pertaining to foodstuffs.

### *Literature / Study Material*

- Ijäs and Välimäki: Elintarvikehygienia ja -lainsäädäntö. Otava.
- Elintarvikelainsäädäntö-kansio and EY-lainsäädäntö-kansio. Edita.

### *Learning Methods*

- Lectures
- Laboratory work
- Assignments

### *Assessment*

Examination and reports



### *Prerequisites*

- Microbiology
- Introduction to Food Technology

## **Food equipments and operations, 8 op KC03BELATE (study entity)**

The vigorous mechanisation and automation in the food industry has made expertise in instrument technology an essential part of the field. Safety and the command of process parameters, especially, are topics that are studied in detail in the module.

## **Machine engineering and safety, 3 op KC03BE20073 (study unit)**

### *Lecturers*

Jarmo Alarinta, MSc (Eng.)

### *Objectives*

Students will acquire basic knowledge of the materials, components and production methods used in mechanical engineering. They will also learn about the Machinery Directive and use of the CE symbol.

### *Content*

- Safety requirements in mechanical engineering
- Special requirement of machines used in the food industry
- Materials made of metal
- Choosing materials and processing methods
- Common work methods used in making machine parts
- Fixed, detachable and flexible jointing
- Methods of power transmission
- Hydraulics

### *Literature / Study Material*

To be announced during the course.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Exam and approved assignment

## **Fluid technology and heat transfer technology, 5 op KC03BE40024 (study unit)**

### *Lecturers*

Jarmo Alarinta, MSc (Eng.)

### *Objectives*

Students will understand the more important issues involved in rheology and heat transfer technology. They will also be familiar with common devices associated with these areas, such as valves, pumps and heat exchangers.

### *Content*

- Mass and energy balances
- Pressure loss in pipes
- Types of valves
- Types of pumps
- Dimensions of valves and pumps
- Theory of heat transfer
- Heat exchangers and their dimensions
- Refrigeration technology

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and homework

### *Assessment*

The grade for the course comprises two parts: an interim exam or final exam (80 %) and calculations (20 %). Both parts must be successfully completed to receive a grade for the course.

### *Languages of Instruction*

Finnish

## **Food processing, 14 op KC03BETUTE (study entity)**

The command of production technology is an essential part of the expertise of engineers in the food industry. The module involves finding ways to apply common methods of engineering to the food industry.

## **Maintenance, 3 op KC03BE20089 (study unit)**

### *Lecturers*

Jarmo Alarinta, MSc (Eng.)

### *Objectives*

Students will learn the fundamentals of computer-aided maintenance, including planning, implementation and management.

### *Content*

- Maintenance and development for service reliability
- Space and equipment for maintenance
- Information systems and management methods
- Strategies
- Material requirements and maintenance investments

### *Literature / Study Material*

Käynnissäpidon johtaminen ja talous, Scandinavian Center for Maintenance Management. Vijma Maintenance-kunnossapidon tiedonhallintajärjestelmä

### *Learning Methods*

Lectures, homework, assignment, computer practice

### *Assessment*

One written examination and assignment

### *Languages of Instruction*

Finnish

## **Food plant simulation, 3 op KC03BE20091 (study unit)**

### *Lecturers*

Jorma Mettälä, LSc (Tech.)

### *Objectives*

Students will become familiar with the simulation methods used in designing production systems for the component industry. They will also learn to handle tools and use appropriate tools for a given job.

### *Content*

- Foundations of simulation and examples of application
- Features of simulation tools, areas of use and limitations
- Phases of a simulation project and what it involves
- Use of simulation software

### *Literature / Study Material*

To be announced during the course.

### *Learning Methods*

Lectures and computer-aided exercises and assignments

*Assessment*

Exercises during lessons, assignment and exam

*Languages of Instruction*

Finnish

**Food processing plant design, 3 op  
KC03BE40051 (study unit)**

*Lecturers*

Jarmo Alarinta, MSc (Eng.)

*Objectives*

Students will acquire theoretical knowledge for a project in factory design. They will understand the fundamentals of designing and building a production plant, starting from an idea and building it into a functional factory.

*Content*

- Diagrams used in factory design
- Phases of design and construction
- Combining production lines from unit processes
- Profitability and other calculations
- Team work during projects and the use of expert advice and literature

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, work during lessons and group work

*Assessment*

Examination and approved assignments

*Prerequisites*

- Rheology and Heat Transfer Technology
- Introduction to Automation
- Process Automation
- Industrial Economics

*Languages of Instruction*

Finnish

**Production management, 2 op  
KC03BE20092 (study unit)**

*Lecturers*

Jarmo Alarinta, MSc (Eng.)

*Objectives*

Students will be familiar with the concepts associated with production management and the problematic issues, needs and goals pertaining to production management in the food industry.

*Content*

- Production planning
- Needs in sales
- Raw materials management
- Warehouse management
- Possibilities for flexibility in capacity in various sectors of the food industry
- Network management

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, assignments and independent study

### *Assessment*

Exam and assignments: 70/30

### *Prerequisites*

Introduction to Food Technology

## **Packaging technology, 3 op KC03BE40013 (study unit)**

### *Lecturers*

Jarmo Alarinta, MSc (Eng.)

### *Objectives*

Upon completion of the course, students will be familiar with various packaging materials and techniques, as well as with methods for designing packaging.

### *Content*

- Choosing methods of conveying, storing and packing
- Measurement
- Packing materials and methods
- Feeding and dosing devices

### *Literature / Study Material*

Järvi-Kääriäinen T. and Ollila M. 2007. Toimiva pakkaus. Helsinki: Pakkausteknologia – PTR ry

### *Learning Methods*

Lectures and assignments

### *Assessment*

Exam

### *Prerequisites*

- Introduction to Food Technology
- Food Hygiene and Legislation

## **Production automation, 6 op KC03BEAUTO (study entity)**

Studies in the Production Automation Module provide engineers in the field of biotechnology and food with an understanding of the programme coding solutions used in production automation. Due to the automatising of the food industry, students have the opportunity to further their knowledge through elective courses.

## **Basics of automation, 3 op KC03BE40023 (study unit)**

### *Lecturers*

Ismo Tupamäki

### *Objectives*

Students will acquire a basic understanding of automated systems and learn to identify the more common sensors in the automation of components and where such sensors can be used. They will also be familiar with PLC and how it can be used in systems control units.

### *Content*

- Differences between the automation of components and the automation of processes
- Controls and adjustments
- Common sensors used in the automation of components
- Relay controls, automated systems, PLCs and how to programme them

### *Literature / Study Material*

To be announced during the course.

### *Learning Methods*

Lectures, assignments and laboratory work

### *Assessment*

Exam and approved laboratory work

## **Process automation, 3 op KC03BE20162 (study unit)**

### *Objectives*

Students will acquire basic knowledge of process automation. They will be familiar with the instruments and systems used in process automation, such as control rooms, control instruments and channels in the process industry. They will also be familiar with the graphic symbols used in process automation. The course also involves a project in automation, costs and savings.

### *Content*

- Automation systems and their hierarchical levels
- Adjustment and control circuits
- Stages and instruments in automation projects
- Flow charts and the graphic symbols used in them

### *Literature / Study Material*

To be announced during the lessons.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Exam and approved assignments

### *Prerequisites*

- Introduction to Automation
- Measuring Techniques

## **Leadership, 3 op KC03BEESIM (study entity)**

This module provides students with the tools they need to develop themselves as supervisors, especially during their practical training period and during summer jobs. Skills in management are expanded during the Working with Staff course in the Business Module.

## **Management, 3 op KC03BE20030 (study unit)**

### *Lecturers*

Jarmo Alarinta, MSc (Eng.)

### *Objectives*

Students will be familiar with the tools needed in management and acquire readiness in functioning as a supervisor.

### *Content*

- Scope of management work
- Duties of supervisors
- Legislation and agreements pertaining to management work
- Managing a unit
- Motivation and rewards
- Recruitment and orientation
- Termination of an employment relationship

### *Literature / Study Material*

Hyppänen R. 2007. Esimiesosaaminen – Liiketoiminnan menestystekijä, Helsinki: Edita Oy.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Exam and assignments

## **Environment, 3 op KC03BEYMP (study entity)**

Taking responsibility for the environment is an essential value in the food processing industry. The significance of expertise in sustainable development is of great priority because there are still ways to reduce the environmental load of the food processing industry by using the best possible technology.

## **Sustainable development, 3 op KC03BE20170 (study unit)**

### *Lecturers*

Jorma Tuomisto, MSc (Eng.)

### *Objectives*

Students will acquire insight into environmental protection as it relates to engineering. They will learn to take a positive and responsible attitude toward environmental protection and become familiar with the possibilities of environmental technology. Students will understand the prerequisites of sustainable development.

### *Content*

- Climate
- Air quality
- Inland surface and ground waters
- Soil
- Baltic Sea
- Impact of humans on the environment
- Preventing harmful impacts
- Cleaning contaminated soil
- Sustainable development
- Sustainable technology
- Waste Act
- Sorting and handling waste, recycling and final placement
- Environmental systems and permits

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Lectures and assignment

### *Assessment*

Written examination and assignment

## **PRODUCT DEVELOPMENT, 10 op KC03CE10 (study entity)**

Product development and quality control are essential concepts to understand in the food processing industry. This elective module supports graduating engineers' broad-minded understanding of the food processing industry.

## **Product development, 6 op KC03BE60011 (study unit)**

### *Lecturers*

Marjatta Salminen, MSc (Eng.)

### *Objectives*

Students will be familiar with the various phases of the customer-oriented product development process and participate in a food product design project.

### *Content*

- Consumer surveys and evaluation based on the senses in various phases of product development
- Test marketing
- Generation of ideas
- Project selection
- Product design
- Test design methods

- Recipe optimisation
- Price calculations
- Preservation and packaging tests
- Process design
- Product testing and marketing
- Factor test designs and analysis of results using variance analysis and factor analysis

#### *Literature / Study Material*

Material distributed by the lecturer.

#### *Learning Methods*

- Lectures
- Assignments
- Production design project as a group project (attendance and participation compulsory)

#### *Assessment*

The grade for the course comprises two parts: an exam (75 %) and the product design project (25 %). Both parts must be successfully completed to receive a grade for the course.

#### *Prerequisites*

- Food Processing Legislation
- Food Chemistry

#### *Languages of Instruction*

Finnish

## **Food industry quality management, 4 op KC03CE60030 (study unit)**

#### *Lecturers*

Henrietta Gullman, MA and BSc (Eng.)

#### *Objectives*

Students will be familiar with the factors influencing the quality of food stuffs, quality control and work methods.

#### *Content*

- Basic issues in quality control
- Quality control systems
- Quality control guidebooks and work instructions
- Methods for gathering statistics
- Control charts
- Evaluation based on the senses and evaluation councils
- Utilising various evaluation methods in quality control

#### *Literature / Study Material*

Lecturer's material

#### *Learning Methods*

Lectures

#### *Assessment*

Approved exam

#### *Prerequisites*

Suomi tai englanti

## **FOOD PRODUCTION, 10 op KC03CE20 (study entity)**

Studies in the elective Production Operations Module concentrates on two current issues:

- Designing and developing processes
- Utilisation of robots

These areas provide opportunities to make production more efficient. They are areas in which engineers should possess skills when working as supervisors and in development.

## **Food processing system design, 6 op KC03CE40322 (study unit)**

### *Lecturers*

Jarmo Alarinta

### *Objectives*

Students will be competent in calculating the capacity of a production line formed from unit processes as well as other calculations associated with selection and measurements. They will be introduced to mathematical problems associated with the material and energy balances of a production line, capacity and other calculations that affect the choice of equipment. Students will acquire practical know-how in carrying out a factory design project, starting from designing and ending with a functional factory.

### *Content*

- Phases involved in designing and creating a production plant
- Dimensioning a production line
- Profitability
- Optimisation of process parameters
- Reference calculations
- Group work in a project

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments and group work

### *Assessment*

Approved assignment and personal portfolio

### *Prerequisites*

Factory Design

### *Languages of Instruction*

Finnish

## **Robotics, 4 op KC03CE40240 (study unit)**

### *Objectives*

Students will understand the structure and functions of robots to an extent where they will be competent in determining the advantages and disadvantages of a particular robot when purchasing one. They will also be competent in comparing various robot options. Students will practise programming robots with the robots on the laboratory.

### *Content*

- Structure of robots
- Sensors
- Gripping devices
- Senses
- Control systems
- Robot purchasing project
- Costs and possible savings in purchasing robots

### *Literature / Study Material*

- Robotiikka. Suomen Robottiyhdistys Ry
- Other material distributed by the lecturer

### *Learning Methods*

Lectures and laboratory assignments

### *Assessment*

Approve assignments and examination



*Prerequisites*

Introduction to Automation

*Languages of Instruction*

Finnish

**GENERAL FOOD TECHNOLOGY, 30 op**  
**KC03CE30 (study entity)**

During the General Food Processing Technology line of specialisation, students further their knowledge of product technology and they will be familiar with the products and special features of the dairy industry, bakery industry, and fruit and vegetable industry. Students will apply the basic knowledge they learn in their Basic Studies and Common Professional Studies.

**Dairy technology 1, 5 op**  
**KC03CE60162 (study unit)**

*Objectives*

Students will acquire knowledge of milk products and the composition, production methods and processing equipment of dairy products.

*Content*

- Composition and quality components of milk
- Milk processing in dairies
- Production of soured milk products, butter, ice cream, cheese and light spreads
- Probiotics and functional dairy foods

*Literature / Study Material*

Lecturer's material

*Learning Methods*

Lectures and laboratory work (compulsory attendance)

*Assessment*

The grade for the course comprises two parts: an exam (75 %) and reports (25 %). Both parts must be successfully completed to receive a grade for the course.

*Prerequisites*

- Microbiology
- Food Chemistry
- Biochemistry

*Languages of Instruction*

Finnish

**Dairy technology 2, 2 op**  
**KC03CE60163 (study unit)**

*Objectives*

During work in the laboratory, students will further their knowledge of the special properties of milk and the composition and production methods of dairy products.

*Content*

Producing soured milk products, ice cream, cheese, butter and spreads.

*Literature / Study Material*

Lecturer's material

*Learning Methods*

Assignments

*Prerequisites*

Introduction to Dairy Technology

## **Cereal technology 1, 5 op KC03CE60190 (study unit)**

### *Objectives*

Students will acquire basic knowledge of cereal types and their composition, milling processes of cereals, malting, production of cereal-based feeds and the fundamentals of baking.

### *Content*

- Grain structure and nutrients of cereals
- Cereal types
- Cereal storage and quality control.
- Roll milling
- Milling oats, rice and barley
- Malting
- Starch syrups
- Cereal-based feed
- Basics of making wheat breads

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Lectures and laboratory work (compulsory attendance)

### *Assessment*

The grade for the course comprises two parts: an exam (70 %) and reports (30 %). Both parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Food Chemistry

## **Cereal technology 2, 2 op KC03CE60201 (study unit)**

### *Lecturers*

Marjatta Salminen, MSc (Eng.)

### *Objectives*

Students will acquire advanced knowledge in baking processes, factors affecting product quality, and the baking industry.

### *Content*

- Production of bread, pastries, confectionary products and biscuits
- Pre-prepared dough and
- Cold baking
- Additives
- Quality control
- Machinery used in bakeries

### *Literature / Study Material*

- Laatu-leipää käsikirja leipurille, Leipomoalan Edistämissäätiö
- Kahvileipää käsikirja leipurille, Leipomoalan Edistämissäätiö
- Kondiittorin käsikirja, Leipomoalan Edistämissäätiö
- Lecturer's material

### *Learning Methods*

Lectures and baking exercises (compulsory attendance)

### *Assessment*

The grade for the course comprises two parts: an exam (50 %) and reports (50 %). Both parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Food Chemistry

*Languages of Instruction*

Finnish

**Meat technology 1, 5 op  
KC03CE60140 (study unit)**

*Lecturers*

Eero Puolanne, DSc (Food Processing)

*Objectives*

Students will possess knowledge of the factors affecting the quality and use of meat. They will also gain insight into the more common meat production processes.

*Content*

- Animal species used for slaughter
- Slaughtering
- Structure and composition of muscles
- Postmortem changes in meat
- Production of meat products

*Literature / Study Material*

Puolanne: Lihateknologia 1. University of Helsinki.

*Learning Methods*

Lectures

*Assessment*

Approved examination

*Prerequisites*

- Biochemistry
- Food Chemistry

**Vegetable and berry products, 3 op  
KC03CE60212 (study unit)**

*Objectives*

Students will be familiar with the use, properties and quality of fruit and vegetable products. They will also be familiar with the more common production processes and the factors influencing quality and safety.

*Content*

Properties of and common processing methods for various fruits and vegetables.

*Literature / Study Material*

Lecturer's material

*Learning Methods*

Laboratory work and lectures

*Assessment*

Written exam and approved reports

*Prerequisites*

Introduction to Food Processing Technology

*Languages of Instruction*

Finnish

**Project studies in food technology, 8 op  
KC03CE60213 (study unit)**

*Objectives*

Students will understand the demands associated with the duties of an engineer and know how to apply previously learned knowledge and skills to independent problem-solving situations and acquiring new information. The purpose of the Project Studies is to nurture students' growth into the engineering profession and to provide them with an opportunity to acquire special expertise in applying food processing technology to practical problems and challenges while working

in the field. Project Studies also develop students' problem-solving and information acquisition abilities as well as their skills in communicating and interacting with others. Students complete their studies individually or in groups in projects offered by businesses or organisations.

#### *Content*

Students will engage in practical work in the Project Workshop and company projects. They are required to attend a seminar that pertains to the project in which they participated and the results of that project. Students will be given three tasks at the beginning of the course that are associated with the food processing industry.

#### *Learning Methods*

Group work and independent study

#### *Assessment*

Approved completion of the required work, project reports and seminar

#### *Languages of Instruction*

Finnish or English if necessary

### **Meat technology 1, 5 op KC03CE60142 (study unit)**

#### *Lecturers*

Eero Puolanne, DSc (Food Processing)

#### *Objectives*

Students will be familiar with the factors affecting the quality and use of meat and the more common production processes associated with meat products.

#### *Content*

- Animal species used for slaughter
- Slaughter
- Structure and composition of muscles
- Postmortem changes in meat
- Production of meat products

#### *Literature / Study Material*

Puolanne: Lihateknologia 1. University of Helsinki.

#### *Learning Methods*

Lectures

#### *Assessment*

Approved exam

#### *Prerequisites*

- Biochemistry
- Food Chemistry

### **Meat technology 2, 5 op KC03CE60150 (study unit)**

#### *Objectives*

Students will be familiar with the manufacturing process and product quality involved in making meat products.

#### *Content*

- Producing meat products
- Product quality
- Influencing product quality and the properties of products

#### *Literature / Study Material*

Lecturer's material

#### *Learning Methods*

- Assignments (attendance compulsory)

- Field trips

*Assessment*

Portfolio and journal

*Prerequisites*

Introduction to Meat Processing Technology

**Meat technology 3, 5 op  
KC03CE60143 (study unit)**

*Objectives*

Students will acquire advanced knowledge of the development and processing of meat products, the development of processes, and the nutritional properties of meat products.

*Content*

- Development and processing of meat products
- Development of processes
- Nutritional properties of meat products

*Literature / Study Material*

Lecturer's material

*Learning Methods*

- Assignments
- Group work
- Lectures

*Assessment*

Portfolio and journal

*Prerequisites*

Introduction to Meat Processing Technology

*Languages of Instruction*

Finnish or English

**Prepared food technology, 5 op  
KC03CE60144 (study unit)**

*Objectives*

Students will be familiar with the special features of processed foods, such as processing, safety, and nutritional properties.

*Content*

Processing, safety and nutritional properties of processed foods

*Literature / Study Material*

Lecturer's material

*Learning Methods*

- Assignments
- Group work
- Lectures
- Field trips to various companies

*Assessment*

Portfolio and journal

*Prerequisites*

Introduction to Meat Processing Technology

*Languages of Instruction*

Finnish or English

## **Project studies in meat and prepared food technology, 10 op KC03CE60145 (study unit)**

### *Objectives*

Students will understand the demands associated with the duties of an engineer and know how to apply previously learned knowledge and skills to independent problem-solving situations and acquiring new information. The purpose of the Project Studies is to nurture students' growth into the engineering profession and to provide them with an opportunity to acquire special expertise in applying meat and food processing technology to practical problems and challenges while working in the field. Project Studies also develop students' problem-solving and information acquisition abilities as well as their skills in communicating and interacting with others. Students complete their studies individually or in groups in projects offered by businesses or organisations.

### *Content*

Students will engage in practical work in the Project Workshop and company projects. They are required to attend a seminar that pertains to the project in which they participated and the results of that project. Students will be given three tasks at the beginning of the course that are associated with the food processing industry.

### *Learning Methods*

Group work and independent study

### *Assessment*

- Approved project work
- Project reports
- Seminar

## **ENTREPRENEURSHIP MODULE, 15 op KC03CEY10 (study entity)**

The aim of the Business Operations Module is to familiarise students with business operations in general and the various sub-areas of those operations in detail, such as business economics, accounting pertaining to financing, marketing, and personnel management. Students may also choose courses in management of a business project, process management and strategic accounting to include in this module.

## **Human resources management, 4 op KC03CY10010 (study unit)**

### *Lecturers*

Lasse Tarhala, MSc (Eng.)

### *Objectives*

Students will acquire basic knowledge of operative and strategic personnel management from the point of view of the individual and processes.

### *Content*

- Modern human resources management
- The learning organisation
- Strategic dimension and organisation culture
- Management in changing organisations
- Situation management and interaction
- Individuals as part of a work community, motivation, dedication and supervisor/subordinate discussions
- Development of skills
- Collective agreements
- Labour legislation

### *Literature / Study Material*

- Viitala R. 2000. Henkilöstöjohtaminen
- Lecturer's material

### *Learning Methods*

- Active participation in lectures and group work
- Seminars approved assignments
- Final exam

### *Assessment*

Study Descriptions

- Final exam(80 %)
- Seminars (20 %)

*Languages of Instruction*  
Finnish

## **Project leadership, 5 op KC03CY20032 (study unit)**

*Lecturers*  
Jarmo Alarinta, MSc (Eng.)

*Objectives*  
Students will acquire basic skills methods needed to work in projects. They will also possess the readiness needed to carry out a project.

*Content*

- Goal-oriented development through projects: preparation, planning, implementation and establishment
- Principles and methods for working in a project
- Project organisation and how it works
- Management of time, resources and costs when planning a project

*Literature / Study Material*  
To be announced.

*Learning Methods*

- Project work
- Lectures
- Case studies

*Assessment*  
Portfolio and practice project

## **Business economics, 3 op KC03BY10010 (study unit)**

*Lecturers*  
Lasse Tarhala, MSc (Eng.)

*Objectives*  
The purpose of the course is to introduce students to the multi-faceted world of entrepreneurship and business. Students will be familiar with basic business operations and know how to establish and manage an enterprise.

*Content*

- Innovations and business ideas
- Choosing a type of company,
- Establishing an enterprise
- Activities in the enterprise: production, financial management and marketing
- Internal accounting, taxation, and financing

*Literature / Study Material*  
Lecturer's material

*Learning Methods*  
Lectures, assignments and project work

*Assessment*

- Lectures: 50 %
- Independent study: 50 %

## **Marketing, 3 op KC03CY10040 (study unit)**

### *Lecturers*

Helena Mikkilä, MA

### *Objectives*

Students will acquire insight into customer-focused marketing concepts, models, as well as marketing strategy and how it should be implemented. Students will understand customer-focused marketing as a critical success factor in marketing.

### *Content*

- Operational environment and forms of marketing
- Customer-focused marketing
- Segmentation and marketing to the individual
- Internal marketing
- Marketing organisation: structure and resources
- New competition for the service industry and customer management
- Role of communication in marketing
- Service culture

### *Literature / Study Material*

- Lahtinen & Isoviita, Asiakaspalvelun ja markkinoinnin perusteet. 2001.
- Grönroos. Palveluiden johtaminen ja markkinointi.

### *Learning Methods*

- Project work
- Lectures
- Case studies
- Marketing simulation Independent study

### *Assessment*

- Final exam (80 %)
- Projects and case studies (20 %)

### *Prerequisites*

Industrial Economics

### *Languages of Instruction*

Finnish

## **PRACTICAL TRAINING, 30 op KC03EE10 (study entity)**

Practical training is an essential part of students' studies, and it is a degree requirement. Practical training not only involves work, but learning while working and applying in practice what students have learned in theory. It ensures that students will be able to cope in the working world once they have graduated. Students are also able to obtain important relationships with employers and their representatives. The aims of the practical training are as follows:

- Students will be competent in working as a member of a work community.
- Students will be competent in applying the knowledge they have learned into practice.
- Students will be trained to carry out field-related technical implementations and abide by good practices.
- Students will be familiar with various working methods and phases of work.
- Students will be trained in working economically and responsibly.
- Students will develop their social skills, self-expression and language skills.
- Students' ability to cope with pressure and stress will improve.
- Students will be trained in management.
- Students independently obtain a practical training placement and make an employment contract with the employer.

Practical training therefore trains students in applying for a job. The practical training period is also a good time for students to inquire about topics for their project and thesis work.

## **FINAL THESIS, 15 op KC03FE80 (study entity)**

Students normally begin their thesis work during their practical training period or subsequent to it, and it is completed last, i.e. during students' fourth year of study. It would be good to choose a topic as early as possible, right at the



beginning of the practical training. Students may do their thesis independently as something pertaining to designing, development or as a survey, or it can be a part of a more extensive research and development project. The purpose of the thesis is to show that students have the ability to independently utilise theoretical information they have acquired to solve practical problems. Students do their thesis for various companies or other external commissioner, e.g. research projects for research institutions, with few exceptions. In this way, students have an excellent opportunity to pave their way into the company after graduation.

### **FREE CHOICE STUDIES, 10 op KC03DE90 (study entity)**

The purpose of the Elective Studies is to further students' knowledge acquired during their Professional Studies. Courses taken in other institutions of higher education may be approved and credit received toward elective courses. We recommend that students choose elective courses offered by their degree programme. In this way, they best support students' other studies and completing them simultaneously with other courses is easy.

# Degree Programme in Forestry (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Natural Resources

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The constructivist theory of learning emphasises the active role of the students and their personal experiences in their education, which helps them to understand what is being taught. The teacher acts as facilitator of the learning process.

Characteristics of learning:

1. Students set their own learning objectives.
2. Students make a Personal Study Plan.
3. The information to be learned is connected to students' world of experiences, work and living environment.
4. Open communication between the students and teacher is nurtured to deepen the understanding of the information to be learned and to evaluate learning experiences.
5. The process of learning is emphasised in the studies, not merely objectives and contents.
6. Together with the teachers, students monitor and evaluate their own learning and the learning of their peers. Learning is systematically developed based on feedback. The feedback is discussed together with the students, and they lead the development of the learning situations.

Teaching involves the use of various topic-related, applied methods. The variety of teaching methods is used in the programmes to support students' professional development, readiness for the working world and professional expertise. Students attend lectures, engage in independent information acquisition, work in projects, work online, do assignments and exercises in the forest and participate in co-operative learning.

## PROFILE OF THE PROGRAMME

The degree programme (240 cr) comprises Basic Studies (55 cr), Professional Studies (100 cr), Specialisation Studies (25 cr), elective courses (15 cr), practical training (30 cr) and a final thesis (15 cr). Each of these parts of the programme is divided into modules and courses. The recommended time to complete the programme is four years.

During their first and second years of the programme, students complete courses in the Common Basic Studies and Common Professional Studies, which include silviculture, business and leadership. They continue with the Common Professional Studies during the third and fourth years of the programme and advance their expertise with Specialisation Studies, which must amount to 25 credits of coursework. Students can choose more extensive study modules or individual courses pertaining to wood purchasing, silviculture, forest planning, bio-energy, business, or nature and rural travel, for example.

Field trips to the forest and various field-related companies are an essential part of the degree programme. The periods of practical training (30 cr), which students usually do in the summertime, provide them with experience from the working world. Students must also choose 15 credits of elective courses and do a final thesis (15 cr).

In addition to biology and technology, the core expertise of forest engineers includes entrepreneurship and the command of basic issues in finance. Skills in collaboration, communication and leadership are also important. The essential areas of expertise taught in the degree programme are silviculture, forest planning and skills in acquiring wood with consideration to environmental issues.

## KEY LEARNING OUTCOMES

### *Ecology and silviculture*

A Bachelor of Natural Resources

- \* understands the biological, ecological and economical foundations of growing forests.
- \* is competent in independently compiling and executing plans for growing and managing forests.

### *Purchasing wood*

A Bachelor of Natural Resources

- \* is familiar with the wood purchasing chain and competent in considering the technical, economical and ecological aspects of their activities, as well as the aims of forest owners.

### *Forest planning*

A Bachelor of Natural Resources

- \* is competent in moving around forest terrain independently using various maps and aerial pictures and in utilising surveying equipment.
- \* knows how to make forest plans according to the goals of forest owners and to utilise those plans.

**Bio-energy**

A Bachelor of Natural Resources

- \* understands the basic concepts and definitions associated with bio-energy.
- \* is familiar with the various ways to produce bio-energy, measurement quantities and units, energy balances and potentials, as well as with the burning techniques of various forms of bio-energy.

**Business**

A Bachelor of Natural Resources

- \* has a comprehensive understanding of the business operations in a company and possess a business-oriented way of thinking.
- \* is competent in establishing their own business, evaluating how profitable it is and in marketing their expertise.

**OCCUPATIONAL PROFILES**

Forest engineers work in silviculture and logging, planning the use of forest and natural resources, as consultants and educators, and in marketing, sales and purchasing. Self-employment and the rapidly growing field of bio-energy, for example, also offer employment opportunities.

**ACCESS TO FURTHER STUDIES**

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in natural resources. (University of applied sciences act 351/2003, in Finnish)

**COURSE STRUCTURE**

The courses in the degree programme are available at METSATAL 2009 (1.9.2009), 240 cr.

**EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

**CONTACT PERSONS**

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 ECTS departmental coordinator / International coordinator: Ms Pirkko Kivinen, tel. +358 20 124 5807, e-mail: pirkko.kivinen@seamk.fi  
 Student counsellor: Mr Jorma Toopakka, tel. +358 20 124 5814, e-mail: jorma.toopakka@seamk.fi

## Degree Programme in Forestry (In Finnish) (1.9.2009)

### METSATAL 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KB02A2	<b>BASIC STUDIES</b>					<b>55</b>
KB02AOP	<b>Orientation</b>					<b>4</b>
KB02AOPOA4	Orientation	x				4
KB02AVI	<b>Communication skills</b>					<b>11</b>
KB02AVITE5	Communicative skills	x				5
KB02AENTV3	English, Communication in Working Life	x				3
KB02ARUTV3	Swedish, Communication in Working Life		x			3
KB02AME	<b>Methodological studies</b>					<b>14</b>
KB02AMEAT3	Basics of information technology	x				3
KB02AMEMA7	Mathematics and statistics	x				7

KB02AONOP4	Process of thesis			x		4
KB02AYH	<b>Social studies</b>					<b>12</b>
KB02AYHTT5	Health and Safety in a Working Environment	x				5
KB02AYHYM4	Individual in the changing world	x				4
KA01ATYKA02	Physical education	x				3
KB02ALU	<b>Natural sciences</b>					<b>14</b>
KB02ALU FK3	Physics and chemistry	x				3
KB02ALUKD6	Botany and dendrology	x				6
KB02ALUKP5	Classification of Habitats		x			5
KB02B1	<b>COMMON VOCATIONAL STUDIES</b>					<b>100</b>
KB02BMT	<b>Basic Studies in Forestry</b>					<b>24</b>
KB02BMTPT5	Woodworking Industry and Technology	x				5
KB02CBETP5	Bioenergian tuotannon ja käytön perusteet			x		5
KB02BMTSP5	Suunnittelun ja metsänhoidon perusteet	x				5
KB02BMTPH5	Puunhankinnan ja logistiikan perusteet	x				5
KB02BMTLH4	Monikäytön ja luonnonhoidon perusteet		x			4
KB02BLI	<b>Studies in Business</b>					<b>28</b>
KB02AYHKT4	Kansantalous ja metsäpolitiikka			x		4
KB02BLIYT8	Introduction to business economics	x				8
KB02BLIMR07	Marketing	x				7
KB02BJOPR3	Project management and planning			x		3
KB02BJOJO6	Management		x			6
KB02BYO	<b>Environmental studies</b>					<b>9</b>
KB02BYOYT5	Environmental sciences	x				5
KB02BYOYS4	Environmental protection			x		4
KB02BMH	<b>Silviculture</b>					<b>9</b>
KB02CMHMG5	Forest Growing		x			5
KB02CMH MU4	Forest regeneration			x		4
KB02BMS	<b>Forest management planning</b>					<b>18</b>
KB02CMSMK5	Metsänmittaus ja kartoitus		x			5
KB02BMTPJ5	Paikkatieto- ja paikannusjärjestelmät		x			5
KB02CMSST4	Planning and information systems			x		4
KB02CMSHA4	Forest Planning Practices			x		4
KB02CPH	<b>Wood procurement</b>					<b>12</b>
KB02BPHPH9	Wood procurement		x			9
KB02CPHMT3	Forest roads				x	3
KB02C70	<b>ORIENTATION STUDIES</b>					<b>25</b>
KB02CBE1	<b>Bioenergy</b>					<b>10</b>
KB02CBELY5	Bioenergy business and heat-entrepreneurship			x		5
KB02CBEHP5	Forest energy – procurement and utilization				x	5
KB02CLI	<b>Studies in Business</b>					<b>15</b>
KB02CLIMH5	Marketing intelligence			x		5
KB02CLIKV3	Law merchant and law of obligations			x		3

KB02CLIMJ4	Marketing management				x	4
KB02CLIKA3	Kauppa ja kuljetuksen asiakirjat				x	3
KB02CMH	<b>Silviculture</b>					<b>10</b>
KB02CMHTA2	Forest Tree Breeding and Plant Construction				x	2
KB02CMHOJ3	Maintenance of Forest Drainage Area				x	3
KB02CMHPA3	Forest pathology and damages				x	3
KB02CMHPS2	Silviculture in northern Finland				x	2
KB02CMS	<b>Forest management planning</b>					<b>5</b>
KB02CMSKH3	Real estates and pricing				x	3
KB02CMSPH2	Utilization of GIS				x	2
KB02CPHPR	<b>Wood procurement project</b>					<b>10</b>
KB02CPHPR10	Wood procurement project				x	10
KB02D	<b>ELECTIVE STUDIES</b>					<b>15</b>
KB20EHA	<b>PRACTICAL TRAINING</b>					<b>30</b>
KB02EHAHA30	Practical training	x				30
KB02F	<b>THESIS</b>					<b>15</b>
KB02FONON15	Thesis				x	15

## Study Descriptions

### BASIC STUDIES, 55 op KB02A2 (study entity)

The Basic Studies, which take place during students' first and second years of study, provide students with the knowledge and skills they will need when they begin their Professional Studies. The Basic Studies include introductory courses, basic courses in science and social studies, language and communication courses, as well as courses on research methods.

### Orientation, 4 op KB02AOPOA4 (study unit)

#### Lecturers

- Forest Officer Erkki Raittila
- Jorma Toopakka Jorma, MSc (Soc. Sc.) and BSc (For. Tech.)

#### Objectives

The course is divided into two parts: Studying at the University of Applied Sciences and Orientation into the Field of Forestry. Studying at the University of Applied Sciences: Students will be introduced to the institution, study environment, the degree programme, as well as the support services offered to students. They will compile their Personal Study Plan. Students will be familiarised with the teaching methods used in the school and receive guidance on developing their learning techniques and information acquisition skills. Upon completion of the course, students will be familiar with the opportunities the institution has to offer and know how to take advantage of them. They will be competent on compiling a Personal Study Plan and understand the significance of the right learning techniques, information acquisition skills and independent study as essential aspects of smooth studying and learning a new profession. Orientation into the Field of Forestry: Upon completion of the course, students will be familiar with the structure of Finland's forest clusters and the operational environments and essential organisations associated with forestry, timber production and rural travel. Students will have command of field-related terminology and understand the status of forestry, timber production and rural travel in Finland's national economy.

#### Content

- Study and learning environments
- Organisation of the institution
- University of applied sciences
- Degree programme
- Institution's international activities

- Student unions
- Tutors and other supportive services
- Teaching methods
- Learning techniques
- Information acquisition skills
- Compilation of a Personal Study Plan
- Finland's forest resources and their use
- Status of forestry, timber production and rural travel in Finland's national economy
- Forest clusters
- Environments for forestry timber production nature and rural travel
- Central, field-related organisations and how they work
- Field-related terminology
- Significant sources of information

#### *Literature / Study Material*

- Seinäjoki University of Applied Sciences Study Guide
- Material obtained while completing assignments
- Finnish Forest Research Institute. Metsätaloustollinen vuosikirja (latest annual)
- Finnish Forest Industries Federation. Avain suomen metsäteollisuuteen 2007
- Other material as indicated

#### *Learning Methods*

- Lectures
- Supervised assignments
- Field trips

The compulsory parts of the course will be announced at the beginning of the course.

#### *Assessment*

Pass/fail

#### *Languages of Instruction*

Finnish

## **Communicative skills, 5 op KB02AVITE5 (study unit)**

#### *Lecturers*

Helena Sarvikas, MA

#### *Objectives*

The course comprises two parts: 1. Language and Communication for the Working World: 3 cr Students will be competent in choosing appropriate communication tools for given situations. They will be able to use language and means of influence effectively, and be competent in assessing and developing their own communicative skills. 2. Communication in Forestry: 2 cr Students will become familiar with communication as a function in the work community. They will be aware of the goals of internal and external communication as well as the more common purposes of such communication. Students will be familiar with the Finnish culture of communication in forestry and its underlying factors. They will be introduced to organisations and partners involved in field-related communication and the channels of publicity and how various media work. Students will have command of the appropriate and successful ways experts influence an organisation's publicity, build an organisation's image, and communicate with partners. Students will be competent in applying the knowledge of communication they have learned to practical situations in their future work community in the field of forestry.

#### *Content*

1. Language and Communication for the Working World: two areas of emphasis

- Communication as an expert
- Group communication for the working world

Students will engage in both oral and written exercises pertaining to communication; some will be completed independently and some in groups.

- Dialogues and presentations for different situations

- Compiling common documents with consideration to layout and content, tools and target groups as well as special features
- Familiarisation with various cultures of communication, especially field-related communication
- Communication in groups: roles, documentation and assessment
- Significance of customer-service skills in communication situations in the working world

## 2. Communication in Forestry

- Internal and external communication in organisations and enterprises: publicity, maintaining contacts, company image, and company relations
- Image of forestry in Finland and abroad, organisations involved in forestry communication, target groups, communicativeness
- Newscasting, publicity and publicity crises.
- Channels of publicity in forestry, working with the media
- Organising excursions to the forest, public meetings

### *Literature / Study Material*

#### 1. Language and Communication for the Working World:

- Iisa K., Oittinen H. & Piehl A. 2006. Kielenhuollon käsikirja. Yrityskirjat Oy.
- Repo I. & Nuutinen T. 2003. Viestintätaito. Otava.
- Koskimies R. 2002. Asiantuntijan esiintymistaito. Oy Finn Lectura Ab.
- Mattila H., Ruusunen T. & Uola K. 2006. Viestinnän työkaluja amk-opiskelijalle.
- Uimonen T. 2003. Taitoa tekijälle. Tehoa teksteihin. Opas tiedottavaan kirjoittamiseen. Inforviestintä Oy.
- Various works of fiction pertaining to the forest

#### 2. Communication in Forestry

- Aula P. and Heinonen J. 2004. Maine – menestystekijä. WSOY.
- Jensen R. 1999. The Dream Society: How the Coming Shift From Information To Imagination Will Transform Your Business. McGraw-Hill.
- Juholin E. and Kuutti H. 2003. Mediapeli anatomia ja keinot. Inforviestintä.
- Kortetjärvi-Nurmi S., Kuronen M-L. and Ollikainen M. 2002. Yrityksen viestintä. Edita.
- Makkonen J. and Tuomi-Nikula J. 1998. Metsäviestintä. Metsälehti Kustannus.
- Siukosaari A. 2002. Yhteisöviestinnän opas. 2nd edition. Business Books. Tietosanoma Oy.

### *Learning Methods*

- Lectures
- Practice in various communicative situations
- Written assignments, both independently and in groups
- Opportunity for online study
- Discussions
- Co-operation with partner organisations of target groups
- Lectures by experts in the field

### *Assessment*

- Oral and written assignments completed in class and independently
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **English, Communication in Working Life, 3 op KB02AENTV3 (study unit)**

### *Lecturers*

John Pearce

### *Objectives*

Students will improve their skills in the English language. They will understand and be able to use key terminology, both orally and in writing, related to their own field. Students will have command of the English language to the extent that they will be able to work in their own profession in the labour markets of forestry and woodworking industries. Upon completion of the course, students will be competent in providing their personal information and describe their level of education and work experience, and they will also be able to fill out job applications in English. Students will also be able to describe their workplace, its services and functions. They will possess competency in guiding others and

conveying instructions. They will also be able to communicate in writing appropriate to a given situation. Finally, students will be able to describe the economic life in their native country.

### *Content*

- Telling about oneself and one's level of education
- Job applications, curriculum vitae
- Oral and written presentation of one's duties at work
- Guiding and instructing others, either face-to-face or on the phone
- Writing notifications, memos, reports and/or a summary and electronic communication
- Searching for and processing information (e.g. searching for an article on the Internet)

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Oral exercises, such as dialogues, group conversations and presentations, and written exercises.

### *Assessment*

- Active demonstration of English language skills (incl. oral presentations and dialogues)
- Completion of written assignments and exercises
- Examination

All parts of the course must be passed to receive a grade for the course. Evaluation is based on a scale of 1 to 5.

### *Prerequisites*

Students should have command of the essential structures of the English language.

### *Languages of Instruction*

Finnish and English

## **Swedish, Communication in Working Life, 3 op KB02ARUTV3 (study unit)**

### *Lecturers*

Titta Huhtamäki, MA

### *Objectives*

Students will improve their skills in the Swedish language. They will understand and be able to use key terminology, both orally and in writing, pertaining to their own field. Students will master the Swedish language to the extent that they are able to work in their own profession in the labor markets of forestry and forest industries. Upon completion of the course, students will be competent in providing their personal information and describe their level of education and work experience, and they will also be able to fill out job applications in Swedish. Students will also be able to describe their workplace, its services and functions. They will possess competency in guiding others and conveying instructions. They will also be able to communicate in writing appropriate to a given situation. Finally, students will be able to describe the economic life in their native country.

### *Content*

- Telling about oneself and one's level of education
- Job applications, curricula vitae
- Oral and written presentation of one's duties at work
- Guiding and instructing others, either face-to-face or on the phone
- Making notifications, a memo, report and/or summary and electronic communication
- Searching for and processing information, e.g. searching for an article on the Internet

### *Literature / Study Material*

Lecturer's material

### *Learning Methods*

Oral exercises such as dialogues, group conversations and lectures, and written exercises.

### *Assessment*

Active demonstration of Swedish language skills (incl. oral presentations and dialogues), completion of written assignments and exercises, and an examination. All parts of the course must be passed to receive a grade for the course. Evaluation is based on a scale of 1 to 5.



### *Prerequisites*

Students must be able to master the key structures of the Swedish language.

### *Languages of Instruction*

Finnish, Swedish

## **Basics of information technology, 3 op KB02AMEAT3 (study unit)**

### *Lecturers*

Marja-Liisa Mäntylä, BSc

### *Objectives*

Students will be competent in using computers and information networks as tools in their studies and at work, and they will understand their importance as tools for communication and work.

### *Content*

The course involves the discussion of computers, software, peripheral devices and information networks. Students will learn about various software packages and information services. Students also have the opportunity to learn about operating systems and data networks as needed.

### *Literature / Study Material*

Hyppönen A., Ojala A., Joutsu J. 2007. Tietokoneen käyttötaito 1. WSOYPro/Docendo-tuotteet.

### *Learning Methods*

- Exercises on computers and software
- Assignments
- Group work

### *Assessment*

- Final exam
- Exercises
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **Mathematics and statistics, 7 op KB02AMEMA7 (study unit)**

### *Lecturers*

Hannu Lassila, LA

### *Objectives*

Mathematics: Students will have command of the mathematics needed in the field of forestry and economics. They will also be competent in utilising computers as a tool in solving mathematical problems. The purpose of the course is to supplement students' previous knowledge of mathematics, develop their logical thinking skills and ability to utilise mathematics as a tool to solve problems. Statistics: Students will learn to critically interpret statistics and to present the results of their own work using diagrams and charts. They will be introduced to statistical research and be competent in utilising statistical methods in their studies and later in the workig world.

### *Content*

- Review of basic mathematical functions
- Calculating percentages and interest
- Value-added tax
- Geometry
- Theory of equations
- Logarithms and exponent functions
- Mathematical modelling
- Computers as tools for solving mathematical problems
- Familiarisation with the various ways to present statistical information
- Interpretation of statistical data
- Phases and methods of statistical research
- Introduction to methods of statistical analysis

### *Literature / Study Material*

- Textbooks for mathematics in the fields of technology and business.
- Karjalainen L. 2004 (or later edition). Tilastomatematiikka. Pii–Kirjat.
- Heikkilä T. 2004 (or later edition). Tilastollinen tutkimus. Edita.
- Holopainen M., Pulkkinen P. 2008. Tilastolliset menetelmät. WSOY.
- Other material as indicated during lectures.
- Computer programmes.

### *Learning Methods*

- Lectures
- Assignments
- Calculations

### *Assessment*

- Assignments
- Exams

Grading is based on a scale of 1 to 5.

### *Languages of Instruction* Finnish

### *Further Information*

Two credits for online studies.

## **Process of thesis, 4 op KB02AONOP4 (study unit)**

### *Lecturers*

- Tapani Tasanen, DSc (Agr. and For.)
- Helena Sarvikas, MA
- Risto Lauhanen, DSc (Agr. and For.)

### *Objectives*

The course is a part of the studies supporting the process of thesis writing. Students will know the basics of scientific research work, particularly in their own field. They will learn about the requirements of academic texts and publications and will be competent in using academic language in their own thesis.

### *Content*

- Definition of thesis, objectives, supervision, progress of work and assessment
- Conceptual and methodological basis of scientific thinking as well as planning and implementation of research
- Various methods for collecting information and data and problems concerning the reliability and generalisation of research results
- Writing an academic text

### *Literature / Study Material*

- Guidelines for Writing a Thesis. Seinäjoki University of Applied Sciences.
- School's complementary instructions for writing a thesis
- Hirsijärvi S., Remes P. & Sajavaara P. 2005. Tutki ja kirjoita. 11th edition. Kirjayhtymä Oy.
- Anttila P. 1998. Tutkimisen taito ja tiedon hankinta. Artefakta 2.

### *Learning Methods*

- Lectures
- Exercises
- Group work
- Research analysis of a field-related publication
- Compulsory attendance

### *Assessment*

- Active attendance and participation

- Approved exercises
- Evaluation based on a scale of 1 to 5

#### *Prerequisites*

- Studying at the University of Applied Sciences
- Introduction to Statistics

#### *Languages of Instruction*

Finnish

#### *Further Information*

One credit for research and development

### **Health and Safety in a Working Environment, 5 op KB02AYHTT5 (study unit)**

#### *Lecturers*

Engineer Pekka Lietepohja (For. Tech.)

#### *Objectives*

Students will

- know how to act in situations where first-aid is required,
- be able to manage wood harvesting operations safely,
- know the complex of problems of mental work safety and be able to recognise the most common symptoms of burn-out,
- understand the social importance of work,
- be able to analyse the mechanisms of social interaction,
- understand the pluralistic value of their sociologic environment, and
- know the essential specifications of labour legislation.

#### *Content*

- First-aid I
- Training for the work health and safety license
- Responsibility of a supervisor as regards occupational safety
- Work safety at wood harvesting sites
- Mental health and safety
- Models and basic concepts of sociology
- Social interaction
- Labour legislation

#### *Literature / Study Material*

- Sulkunen P. 1994. Sosiologian avaimet. WSOY.
- Hannigan J. A. 1995. Environmental Sociology.
- Äimälä M., Åström, J. Rautiainen H., and Nyyssölä, M. 2003. Käytännön työoikeutta esimiehille. WSOY.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

- Written exams and assignments
- Evaluation on a scale of 1 to 5

#### *Languages of Instruction*

Finnish

#### *Further Information*

Two credits for online studies

### **Individual in the changing world, 4 op KB02AYHYM4 (study unit)**

#### *Lecturers*

Engineer Pekka Lietepohja (For. Tech.)

*Objectives*

Students will know the more significant mechanisms of learning. They will be able to identify the power and norm structures in a group. Students will know the basic structure of the models contributing to the work satisfaction of an individual, and they will be familiar with the basics of creative behaviour and understand the open and the closed character of problems. They will be able to employ the common methods of problem solving. Students will understand the influence of social and global changes on working life and be able to identify the influence of those changes on society. They will be able to adapt to the changes in the requirements applied in professions, and they will understand the regeneration of professions and the importance of continuous education.

*Content*

- Psychology of learning
- Group dynamics
- Socialization
- Work satisfaction
- Creativity and problem solving
- Changes in society and working life
- Labour markets of the future

*Literature / Study Material*

- Erämetsä T. 2003. Myönteinen muutos. Tammi.
- Virkkala V. Luova ongelmaratkaisu. 1994. Virkkala V.
- Siltala J. 2004. Työelämän huonontumisen lyhyt historia. Otava.
- Carnall C. 2003. Managing Change in Organizations. Prentice Hall.
- Other material as indicated during lectures.

*Learning Methods*

Lectures and exercises

*Assessment*

The grade for the course is determined on the basis of exam and exercises. Evaluation is based on a scale of 1 to 5.

*Languages of Instruction*

Finnish

## **Physical education, 3 op KA01ATYKA02 (study unit)**

*Lecturers*

Liisa Lähdesmäki, LSc (Health Education)

*Objectives*

The aim of the course is to improve students' health and well-being through various forms of exercise and to acquire an attitude and state of mind that emphasises active living. Students will learn to maintain their ability to work and function as a part of their professional skills.

*Content*

- Exercise as a way to maintain the ability to work, function, health and well-being
- Types of fitness exercise and engaging in such exercise as the seasons allow
- Compilation of an exercise scheme, implementation and evaluation based on condition
- Ergonomics
- Relaxation

*Literature / Study Material*

- Ruuskanen E (ed.). 2002. Terveysliikunnan opas: Tehokas ja turvallinen terveysliikunta. UKK Institute: Tampere.
- Delavier F. 2006. Lihaskuntoharjoittelun perusteet. VK-kustannus.
- Material distributed by the lecturer

*Learning Methods*

- Supervised assignments
- Working independently, in pairs and in groups

*Assessment*

- Active participation in lectures, working independently and in groups (70 %)
- Approved assignment (30 %)

*Further Information*

Liisa Lähdesmäki

**Physics and chemistry, 3 op  
KB02ALUFK3 (study unit)**

*Lecturers*

Hannu Lassila, LA

*Objectives*

Students will become familiar with the physical and chemical phenomena currently prevailing in our environment. They will understand the significance of physics and chemistry in society and become familiar with the world's scientific perspective and research.

*Content*

- Basics of chemistry
- Acids and bases
- Electrochemistry
- Basics of organic chemistry
- Chemistry and physics in the environment
- Energy production

*Literature / Study Material*

To be announced.

*Learning Methods*

- Lectures
- Assignments
- Demonstrations

*Assessment*

- Exams
- Assignments
- Evaluation based on a scale of 1 to 5

*Languages of Instruction*

Finnish

*Further Information*

One credit for online studies.

**Botany and dendrology, 6 op  
KB02ALUKD6 (study unit)**

*Lecturers*

- Sirpa Välilehto, LA
- Forest Officer Lotta Jaakkola
- Forest Officer Pirkko Kivinen

*Objectives*

The course comprises two parts: 1. Botany: Students will be familiar with the more common plant species. They will know the basics of the plant system and the structure of plants as regards the cells, tissue and organs. Students will have command of the main areas of plant physiology: water, nutrients and energy, as well as the development of plants and reproduction. 2. Dendrology: Students will become familiar with domestic and foreign trees and bushes grown in Finland (physical, ecological and wood producing characteristics). They will research species of trees significant to the forest industry on different continents and learn how they are used in the areas where they grow.

*Content*

1. Botany

- Species identification

- Plant systems
- Plant morphology (anatomy)
- Plant physiology

## 2. Dendrology

- Species of trees and bushes: general features of growth, growing and use
- Foreign forest trees: distribution and significance

### *Literature / Study Material*

#### 1. Botany

- Plant identification books
- Plant collections
- Fagerstedt K., Linden L., Santanen A. and Väinölä A. 2008. Kasvioppi. Siemenestä satoon. Edita.

#### 2. Dendrology

- Hämet-Ahti L. et al Suomen puu- ja pensaskasvio.
- Luukkonen O. 1997. Dendrologian kurssi. Handout.
- Sarvas R. 2002. Havupuut. WSOY.
- Bayard H. 1981. Oxford Encyclopedia of Trees of the World. Oxford University Press.
- Fagerstedt K. et al. 1996. Mikä puu, mistä puusta. Yliopistopaino.
- Pihlström K. 1993 Träden och vi. Föreningen för skogskultur r.f.
- Jalopuumetsät. Metsälehtikustannus 1996.
- Lehtikuusi ja muut ulkomaiset puulajit. Metsälehtikustannus 1997.
- Other literature and material as indicated during lectures.

### *Learning Methods*

- Lectures
- Trips outdoors and other field trips
- Assignments
- Species identification demonstrations
- Plant portfolio

Participation in the trips outdoors and other field trips is compulsory.

### *Assessment*

- Species identification test
- Exam on theory
- Active participation in assignments
- Plant portfolio

Grading is based on a scale of 1 to 5.

### *Languages of Instruction*

Finnish

## **Classification of Habitats, 5 op KB02ALUKP5 (study unit)**

### *Lecturers*

Forest Officer Lotta Jaakkola

### *Objectives*

Types of forests and marshes: Students will be competent in identifying various types of forests and wooded marshes as well as the historical aspects of categorization. Students will also be introduced to alternative methods of categorizing plant habitats. Woodlands: Students will be familiar with the structure of the soil in Finland and the historical development that has influenced it. They will be competent in identifying the more common types of rock and soil and their properties. They will also know how to compare different types of soils with regard to the replanting of forest trees and growth, i.e. they will understand the chemistry and physics of soil as well as organic activity. Students will be aware of the impacts environmental factors on the formation of forest debris, the significance of organic material in the nutrient cycle, and of the ecology of soil organisms.

### *Content*

Types of forests and marshes:

- Ecological foundations of various types of forests
- Categorization of forest plant habitat
- Types of forests and how to identify them
- Principles of categorizing types of marshes
- Types of genuine wooded marshes
- Categorizing diked marshes
- Types of peat
- Decomposition of peat

#### Woodlands:

- Soil
- Generation of soil
- Categorization of types of soil
- Types of soil: formation, structure and distribution

#### Properties of soil:

- Physical properties
- Chemical properties

#### Biology of woodland areas:

- Organic matter in woodland areas
- Soil organisms
- Types of microbes in woodland areas
- Soil formation and describing soils

#### *Literature / Study Material*

- Laine J. & Vasander H. 2005. Suotyypit ja niiden tunnistaminen.
- Kuusipalo J. 1996. Suomen metsätyypit.
- Mälkönen E. (ed.). 2003. Metsämaa ja sen hoito. Metsäntutkimuslaitos ja Metsälehti Kustannus.

#### *Learning Methods*

- Lectures
- Outdoor excursions
- Comilation of a plant portfolio
- Work in groups and independently
- Visit to the Finnish Forest Research Institute in Parkano

#### *Assessment*

- Written exam
- Plant portfolio
- Assignments
- Continuous assessment
- Grading based on a scale of 1 to 5

#### *Languages of Instruction* Finnish

### **COMMON VOCATIONAL STUDIES, 100 op KB02B1 (study entity)**

During the first two year of Basic Studies, students learn basic knowledge about forest ecology and care, forestry technology, planning, purchasing wood and the diverse use of it. There are also courses in marketing, entrepreneurship, languages, communication, and methods.

### **Woodworking Industry and Technology, 5 op KB02BMTPT5 (study unit)**

#### *Lecturers*

- Forest Officer Ossi Vuori

- Artenome Paula Avara–Pihlajamäki Paula, woodworking teacher

### *Objectives*

Students will be familiar with the structure, properties, and defects of wood, and they will understand the significance of wood as regards use and refining. They will learn about the forestry industry in Finland and the structures and volumes of wood use be familiar with the more significant actors in the wood processing industry. Students will understand the issues involved in manufacturing sawn timber, veneer, chipboard, fibre board, chemical pulp and paper and their upgraded products, and they will know the cost structure of production.

### *Content*

- Structure and properties of wood
- Cell structure of wood, differences between coniferous trees and deciduous trees, structure of lignin and the various parts of trees
- Physical properties of wood and the chemical composition of wood
- Defects in wood as regards the use of wood
- Using and refining wood
- Historical development of the use of wood and forests up until modern times
- Requirements pertaining to measurements and quality for logs, fibre board and energy wood from the viewpoint of the user
- Manufacturing and products of sawn timber, veneer, wood panels, paper and wood pulp

### *Literature / Study Material*

- Kärkkäinen, M. 2003. Puutieteen perusteet.
- Koponen. 2002. Puulevytuotanto.
- Sipi M. 2006. Sahatavaratuotanto.
- Other material as indicated by the lecturers
- Sample collections from the Finnish Forest Industries Federation and the wood technology classroom

### *Learning Methods*

- Lecture
- Laboratory work
- Field trips to production plants

### *Assessment*

- Wood identification test
- Exam on theory
- Grading based on a scale of 1 to 5

### *Further Information*

Online studies: 1 cr

## **Bioenergian tuotannon ja käytön perusteet, 5 op KB02CBETP5 (study unit)**

### *Lecturers*

- Risto Lauhanen, PhD (Agr. and For.)
- Jussi Laurila, MSc (Agr. and For.)
- Agrologist Juhani Törmä
- Hannu Lassila, LA

### *Objectives*

Upon completion of the course, students will have an understanding of the concepts and definitions associated with the field of bio-energy. They will be familiar with the various ways and procedures of producing bio-energy, measurands and units, energy balances and potentials, as well as combustion technology as regards various forms of bio-energy.

### *Content*

- Ways of producing and using bio-energy
- Measurands and units
- Calculating energy balances and potentials
- Combustion technology



### *Literature / Study Material*

- Lauhanen R. & Laurila J. 2007. Bioenergian tuotannon haasteet ja tutkimustarpeet. Metla's reports 42. pp. 58. Online publication.
- <http://www.metla.fi/julkaisut/workingpapers/2007/mwp042.htm>
- Other material as indicated in Moodle

### *Learning Methods*

- Lectures
- Calculations
- Exercises
- Field trips to heating plants

### *Assessment*

- Active participation
- Field trips
- Assignment
- Grading based on a scale of 1 to 5

### *Prerequisites*

Studies in mathematics, physics and chemistry

### *Languages of Instruction*

Finnish

### *Further Information*

- Research and development: 2 cr
- Online studies: 2 cr

## **Suunnittelun ja metsänhoidon perusteet, 5 op KB02BMTSP5 (study unit)**

### *Lecturers*

- Forest Officer Antti Väättäinen Antti
- Forest Engineer Jorma Toopakka
- Juhani Joensuu, PhD (Forestry)

### *Objectives*

Principles of planning Students will be competent in getting around in the forest using a basic map and an aerial map. They will know how to measure trees and use the angle gauge in assessing the pattern of a forest, as well as to utilise a forestry plan. Principles of forestry Students will be familiar with issues pertaining to the care of forests, the significance of wood production and the opportunities the field offers. They will also be introduced to work technology and the pricing of work.

### *Content*

Principles of planning

- Orienteering, getting around in the forest
- Instruments needed in measuring trees and evaluating forest stands, how to use them and calculating measurement results
- Using a forestry plan

Principles of silviculture

- Changes and objectives related to silviculture
- Silvicultural work during growth cycles
- Forest regrowth and work techniques to use in seedling stands
- Caring for seedling stands and forest cultivation as well as taking care of tools

### *Literature / Study Material*

- Tapion taskukirja 2002.
- Auvinen P. Metsänmittaus.

- Tapio forestry development centre. 2006. Hyvän metsänhoidon suositukset.
- Current collective labour agreement for the field of forestry

### *Learning Methods*

- Lectures
- Assignments
- Exercises
- Excursions outdoors

### *Assessment*

- Assignments
- Exam
- Continuous assessment
- Grading based on a scale of 1 to 5

### *Prerequisites*

First-aid I

### *Languages of Instruction*

Finnish

## **Puunhankinnan ja logistiikan perusteet, 5 op KB02BMTPH5 (study unit)**

### *Lecturers*

- Forest Engineer Jorma Toopakka Jorma
- Juhani Joensuu Juhani, PhD (Forestry)
- Risto Lauhanen, PhD (Forestry)

### *Objectives*

Purchasing forest products Students will be aware of the principles associated with purchasing forest products in customer-oriented way. They will be able to identify various types of timber and be familiar with the required measurements and quality. Students will be competent in manually handling paperwood and logs safely and in pricing the work involved in manually logging wood. Logistics Students will be familiar with the basic concepts of logistics and the structure of the materials flow in a company as well as how to supervise it.

### *Content*

Purchasing forest products

- Purchasing wood products in a customer-oriented way
- Concepts and methods of manual logging
- Taking care of tools
- Pricing work

Logistics

- Basic concepts of logistics
- History of logistics
- Materials flow in a manufacturing company and supervising it from the raw materials manufacturer to the end-user of the product (purchasing raw materials, production process, marketing and distribution logistics)
- Environmentally sustainable logistics
- Logistics in business economics
- Logistics strategy

### *Literature / Study Material*

- Uusitalo J. 2003. Metsäteknologian perusteet.
- Rantala S. (ed.). 2005. Metsäkoulu.
- Lauhanen R. 2002. Logistiikan perusteet, lecture handout.
- Other material as indicated by the lecturers.

### *Learning Methods*

- Lectures

- Field trips
- Assignments in the workshop and outdoors

#### *Assessment*

- Active participation in the assignments
- Demonstrations
- Exams
- Continuous assessment
- Grading based on a scale of 1 to 5

#### *Prerequisites*

First-aid I

#### *Languages of Instruction*

Finnish

## **Monikäytön ja luonnonhoidon perusteet, 4 op KB02BMTLH4 (study unit)**

#### *Lecturers*

- Forest Officer Helena Merisaari Helena
- Forest Engineer Jorma Toopakka Jorma
- Forest Officer Lotta Jaakkola Lotta

#### *Objectives*

Students will learn about the various means of utilising forests and the compatibility of those means. They will study the history of versatile utilisation of the forest and the research methods associated with the recreational use of nature. Students will be competent in calculating the worth of the forest's nonmaterial advantages and in utilising the methods needed in multi-goal forest planning. They will understand the goals and significance of caring for nature as part of the use and maintenance of forests.

#### *Content*

- Finland's forests and the history of sustainable forestry
- Means of utilising forests and their compatibility
- Principles and concepts of nature care
- Extensivity and evaluation of recreational use of nature
- Distinctive characteristics of forests and landscape management
- Forests and zoning
- Assessing economic worth of non-marketable benefits of forests
- Forest planning and compatibility of the means of utilising forests

#### *Literature / Study Material*

- Kangas J. & Kokko A. 2001. Metsän eri käyttömuotojen arvottaminen ja yhteensovittaminen. Metlan tiedonantoja 800.
- Hyvän metsänhoidon suositukset. Tapio 2006.
- Hänninen E. et al. 1997. Metsämaiseman hoito. Tapio and Metsäteho Oy.
- Komulainen M. 1995. Taajamametsien hoito. Metsälehti.
- Sievänen T. (ed.). 2001. Luonnon virkistyskäyttö 2000. Metlan ta 802.
- Tenhola T. & Kiviniemi M. 2000. Metsätalous kaavoitusalueilla. Tapio.
- Tenhola T. 2002. Maisematyölupa kaavoitetuilla metsäalueilla. Tapio.
- Metla's website: Laaja, uudistuva eri monikäyttömuotojen materiaali.
- Collections of articles as indicated by the lecturers

#### *Learning Methods*

- Lectures
- Assignments to be completed independently and in groups
- Reports
- Field trips
- Outdoor excursions

#### *Assessment*

- Exams pertaining to what was learned on the outdoor excursions and on theory
- Approved assignments
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **Kansantalous ja metsäpolitiikka, 4 op KB02AYHKT4 (study unit)**

### *Lecturers*

Forest Officer Erkki Raittila

### *Objectives*

National economy Students will be familiar with the key concepts of national economy as well as with related sources of information and statistics. They will also be familiar with the factors associated with economic growth, location of production, pricing, and market disruption. Students will understand the economic cycle and know how to assess the impact of various factors on it. Finally, students will be familiar with the means and influences of financial and economic policies. Forest policy Students will be familiar with the structures of the forest industry and timber trade and understand the goals and means of national and international forest policy.

### *Content*

National economy

- Basic concepts
- Markets
- Pricing and well-being
- Economic growth and foreign trade
- Statistics pertaining to the national economy
- Financial and economic policy
- Economic systems, integration and the global economy
- Trends in economic development

Forest policy

- Forest reserves and owning forests in Finland
- Organisations associated with the forest industry
- Forestry legislation
- Forestry schemes
- Taxation in the forest economy and employment impact
- Sources of statistics for the forest industry and timber trade
- Forest economy in the EU and globally

### *Literature / Study Material*

- Pekkarinen J. & Sutela P. Kansantaloustiede
- Kiviniemi M. 2004. Metsäoikeus. Kustannus oy Metsälehti.
- Ollonqvist P. 1998. Metsäpolitiikka ja sen tekijät. Chapters 1, 8, 9 in full, summaries of other chapters
- Latest follow-up report for the Kansallinen metsäohjelma (national forest scheme) by the Ministry of Agriculture and Forestry
- Other material as indicated

### *Learning Methods*

- Lectures
- Group work
- Field trips
- Exam

### *Assessment*

- Participation in field trips
- Completion of assignments
- Exam

Grading is based on a scale of 1 to 5.

*Languages of Instruction*  
Finnish

## **Introduction to business economics, 8 op KB02BLIYT8 (study unit)**

*Lecturers*

- Forest Officer Heikki Holma
- Forest Officer Raimo Jaakkola

*Objectives*

Principles of entrepreneurship Students will understand the significance of entrepreneurship as part of the national economy. They will be familiar with the process of establishing a business. Accounting Students will have command of double-entry bookkeeping and understand the requirements of accounting legislation in external accounting. In addition, they will know how to enter the usual business transactions into the books and make financial statements based on the entries. Students will also be able make the more common calculations needed in accounting and understand the significance of budgeting in financial administration.

*Content*

Principles of entrepreneurship

- Process of establishing a business
- Types of companies
- Financing
- Legislation

Accounting

- Legislation
- Business transactions
- Double-entry bookkeeping
- Financial statements
- Methods for calculating costs
- Budgeting

*Literature / Study Material*

- Ihantola–Leppänen Yrityksen kirjanpito: perusteet ja sovellusharjoitukset. Latest edition.
- Neilimo & Uusi–Rauva. 2005. Johdon laskentatoimi.
- Other material as indicated by the lecturer.

*Learning Methods*

- Lectures
- Exercises
- Independent study

*Assessment*

- Exam
- Continuous assessment
- Grading based on a scale of 1 to 5

*Languages of Instruction*  
Finnish

## **Marketing, 7 op KB02BLIMR07 (study unit)**

*Lecturers*

- Forest Officer Mirja Jääskeläinen
- Forest Officer Heikki Holma

*Objectives*

Introduction to marketing Students will be introduced to modern marketing thinking and understand the significance of

marketing in developing a business. Upon completion of the course, students will be familiar with the theoretical foundations, concepts and models of marketing, and they will be aware of the way(s) companies and organisations in their chosen field carry out marketing. They will be competent in assessing and comparing the marketing activities in those companies and organisations to competitors in the same field and in other fields. Students will understand the significance of creating and maintaining competitive edge in the development of business. Productization and marketing communication Students will acquire basic knowledge of marketing communication and familiarise themselves with related tools and how to use them. Students will apply their acquired knowledge in an extensive project related to the topic. Upon completion of the course, students will understand what marketing communication is, what is intended by it and what its significance is to the activities in an organisation and the various interest groups involved in a given organisation. Students will practice utilising various tools needed in marketing communication through case studies. They will also apply their acquired knowledge in an extensive project pertaining to the topic, e.g. advertising campaign, running a booth at a fair, organising a PR event, etc.)

### *Content*

#### Introduction to marketing

- Theoretical foundation, concepts and models of marketing
- Competitive tools in marketing, image marketing and consumer behaviour
- Creating and maintaining competitive edge
- Developing a business through marketing
- Case studies of companies and organisations

#### Productization and marketing communication

- Introduction to marketing communication
- Personal sales work
- Advertising
- Sales promotion
- Public relations
- Sponsors

The course is integrated into information technology with emphasis on image processing and publishing programs.

### *Literature / Study Material*

- Rope T. & Vahvaselkä I. 1998 or later. Nykyaikainen markkinointi. WSOY.
- Armstrong G. & Kotler P. Marketing. An Introduction. 2000. (assigned pages). Prentice–Hall International.
- Juslin H. & Neuvonen J. Metsäteollisuustuotteiden markkinointi. 1997. Ministry of Education. Handout.
- Vuokko P. 2003. Markkinointiviestintä, vaikutus ja keinot. WSOY.
- Other material to be announced at the beginning of the course.

### *Learning Methods*

- Lectures
- Assignments, both independently and in groups
- Exams

### *Assessment*

- Approved exam
- Approved assignments
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

### *Further Information*

Online studies: 1 cr Research and development: 2 cr

## **Project management and planning, 3 op KB02BJOPR3 (study unit)**

### *Lecturers*

- Forest Officer Mirja Jääskeläinen
- Forest Engineer Pekka Lietepohja

*Objectives*

Students will become familiar with the concepts of project work, project planning, and project management, as well as financing programmes significant to initiating projects. Upon completion of the course, students will

- have command of the various phases in a project cycle,
- be competent in compiling project plans,
- be aware of the importance of project management and the measures used in a project,
- be familiar with the more significant regional development programmes, rural development programmes, programmes financed by the EU, and other international programmes that can be utilised in financing forestry and timber trade projects, and
- be aware of various organisations that offer project financing.

*Content*

- Concepts and procedures in project work
- Organisation of projects
- Project cycle and compiling a project plan
- Project management
- Project financing
- Learning from project work

*Literature / Study Material*

- Silfverberg P. 2001. Ideasta projektiksi –projektisuunnittelun käsikirja. Edita.
- Development Co–operation of Finnish NGOs Manual 2003.
- <http://global.finland.fi/>
- Mäkelä & Stenlund. 1995. Projektijohtaminen, toiminnanohjaus verkostotaloudessa.
- PRAVO or similar material as indicated at the beginning of the course.

*Learning Methods*

- Lectures
- Supervised assignments
- Learning through project work

*Assessment*

- Active participation
- Practice project
- Learning through project work
- Grading based on a scale of 1 to 5

*Languages of Instruction*

Finnish

*Further Information*

Research and development: 1 cr

## **Management, 6 op KB02BJOJO6 (study unit)**

*Lecturers*

Engineer Pekka Lietepohja

*Objectives*

Upon completion of the course, students will be competent in working as a supervisor of an organisation. They will be competent in planning an organisation's objectives and taking a leading role at work. Students will have command of process management and be familiar with quality control. They will also develop their customer service skills and understand the role of interest groups in organisations. Students will be familiar with the factors affecting the processes of change in an organisation and be competent in analysing the various manifestations of leadership.

*Content*

- Development of organisations
- Status of the supervisor in an organisation
- Models of management
- Significance of management to the activities of the work community
- Consciousness of an organisation and meaningful supervision

- Managing customer relations in a changing environment

#### *Literature / Study Material*

- Juuti P. 2006 . Organisaatiokäyttäytyminen. Otava.
- Juuti P 2003. Johtaminen ja organisaation alitajunta. Otava.
- Miettinen E. & Saarinen E. 1991. Muutostekijä. WSOY.
- Kauhanen J. 1997. Henkilöstövoimavarojen johtaminen. WSOY.
- Spiik K–M. 2004. Tulokseen Tiimityöllä. WSOY.
- Robbins S. P. 2003. Organizational Behavior. PRENHALL.
- Kauppinen T. J. 2002. Arvojohtaminen. Otava.
- Other material as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Assignments
- Analyses based on literature

#### *Assessment*

- Assignments
- Interim exams
- Grading based on a scale of 1 to 5

#### *Languages of Instruction*

Finnish

#### *Further Information*

Online studies: 2 cr

## **Environmental sciences, 5 op KB02BYOYT5 (study unit)**

#### *Lecturers*

- Sirpa Välilehto, LA
- Forest Officer Helena Merisaari

#### *Objectives*

The course comprises two parts: 1. Ekologia Students will be familiar with the structures of ecosystems and the general characteristics of their activities. They will understand the significance of various environmental factors on organic and inorganic species and populations. Students will know the general principles associated with the ecology of populations and the significance of ecological activity on the equilibrium of nature. Students will also be introduced to the processes of the forest ecosystem and the relationships between ecological succession and wood species. 2. Natural forest management and nature conservation Students will be competent in planning and initiating forest management with consideration to the different elements of sustainability. They will understand the aims of nature conservation and the means to carry out conservation. When planning forest management and procedures, students will be competent in taking the needs of nature conservation into consideration.

#### *Content*

##### 1. Ecology

- Basic concepts of ecology
- Structure and basic activities of ecosystems
- Population dynamics

##### 2. Natural forest management and nature conservation

- Instructions and regulations pertaining to natural forest management, recommendations for silviculture
- Protection of waters
- Valuable living environments as regards natural forests and the plants that grow there
- Forest certification
- Historical remnants
- Financing natural conservation (environment subsidies, projects)
- Protecting nature and species
- Protection schemes and systems for preserved areas
- Legislation and instructions pertaining to environmental protection



- International and voluntary environmental protection

#### *Literature / Study Material*

- Kellomäki S. 2005. Metsäekologia. Silva Carelica 7.
- Vuorisalo T. 2002. Ympäristöekologia. 5th edition. University of Turku: Centre for Extension Studies.
- Kuusinen M., Nieminen M. and Saaristo L. 2009. Talousmetsien luonnonhoito – Metsäammattilaisen käsikirja. Tapio.
- Joensuu S. 2007. Metsätalouden vesiensuojelu. Tapio.
- Meriluoto M. et al. 2004. Arvokkaiden elinympäristöjen turvaaminen. Tapio.
- Forest Act 1093/1996, sections pertaining to the care of nature
- Act on the Financing of Sustainable Forestry 1094/1996
- Nature Conservation Act 1096/1996 and decree
- Other online material, lecture presentations and handouts as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Assignments
- Exam

#### *Assessment*

- Approved assignments
- Exam
- Grading based on a scale of 1 to 5

#### *Languages of Instruction*

Finnish

## **Environmental protection, 4 op KB02BYOYS4 (study unit)**

#### *Lecturers*

- Sirpa Välilehto Sirpa, LA
- Forest Officer Helena Merisaari
- Erkki Laitila

#### *Objectives*

Principles of environmental protection Students will understand the administration and legislation related to environmental protection. They will feel personally responsible for the environment both at work and during their leisure time. They will be familiar with the general situation of environmental protection on the global level and especially in Finland. Quality control and environmental protection systems Students will be introduced to various quality control and environmental protection systems and their structures. These systems help to identify an organisation's areas of development and improve activities while abiding by the principles of sustainable development. Upon completion of the course, students will be competent in utilising the systems as a tool for managing an organisation. They will also be competent in creating a quality control and environmental protection system according to the ISO standards.

#### *Content*

Principles of environmental protection

- Various areas of environmental protection
- Environmental administration and legislation
- SOVA and YVA, sustainable development

Quality control and environmental protection systems

- Quality control and environmental protection systems
- Policy, viewpoints, objectives, procedures, and meters pertaining to quality control and environmental protection systems
- Surveying the current situation
- Compiling a work plan and following objectives

#### *Literature / Study Material*

- Hakala H. & Välimäki J. 2003. Ympäristön tila ja suojele Suomessa.
- Other material as indicated by the lecturer

### *Learning Methods*

- Lectures
- Online discussions
- Assignments
- Exam

### *Assessment*

- Approved assignments and online exercises
- Exam
- Grading based on a scale of 1 to 5

### *Languages of Instruction* Finnish

### *Further Information* Online studies: 1 cr

## **Forest Growing, 5 op KB02CMHMG5 (study unit)**

### *Lecturers*

- Forest Officer Antti Väätäinen
- Forest Officer Helena Merisaari

### *Objectives*

Students will understand the principles of growing forests and be able to apply those principles in practice. They will be aware of the alternatives in forest management in a decision-making situation (forest owner's goals, possibilities for alternatives, probable outcome, economic profitability).

### *Content*

- Fundamentals of growing forests
- Caring for young stands
- Intermediary harvestings
- Production of high-quality wood
- Nutrient uptake
- Environmental factors
- Requirements of different types of forest use

### *Literature / Study Material*

- Reinikainen et al. 1998. Puiden ravinnepuutokset. Metla's bulletin 688.
- Tapio's guidelines for forest care
- Hynynen et al. 2005. Tuottava metsänkasvatus.
- Mälikönen. 2003. Metsämaa ja sen hoito.
- Forest Act, Act on the Financing of Sustainable Forestry, forest certification.
- Other material as indicated by the lecturer.

### *Learning Methods*

- Lectures
- Field exercises with consideration to the goals of forest planning and wood procurement
- Assignments

### *Assessment*

- Active participation in exercises
- Continuous demonstration of knowledge
- Exam
- Grading based on a scale of 1 to 5

*Languages of Instruction*  
Finnish

*Further Information*  
Online studies: 2 cr

## **Forest regeneration, 4 op KB02CMHMu4 (study unit)**

*Lecturers*  
Forest Officer Antti Väättäinen

*Objectives*  
Students will understand the basics of forest regeneration and know how to apply their knowledge in practice. They will be aware of alternatives available in forest management in decision-making situations (forest owner's goals, possibilities for alternatives, probable outcome, economic profitability).

### *Content*

- Basics in forest regeneration
- Regeneration methods
- Environmental factors
- Requirements of different forms of forest use

### *Literature / Study Material*

- Mälikönen et al. 2000. Forest Regeneration in the Northern Parts of Europe. FFRI. Research paper 790.
- Metsätalouden vesiensuojelu. Tapio 2007.
- Metsänviljelyopas 2001. Metsäteho.
- Tapio's guidelines for caring for forests
- Valkonen et al. 2001. Onnistunut metsänuudistaminen.
- Luoranen–Kiljunen. 2006: Kuusen paakkutaimen viljelyopas. Metla.
- Forest Act, Act on the Financing of Sustainable Forestry and forest certification.
- Other material as indicated by the lecturer.

### *Learning Methods*

- Lectures
- Online study
- Assignments
- Field exercises with consideration to forest planning and wood procurement

### *Assessment*

- Active participation on exercises
- Continuous demonstration of knowledge
- Exam
- Grading based on a scale of 1 to 5

*Languages of Instruction*  
Finnish

*Further Information*  
Online studies: 2 cr

## **Metsänmittaus ja kartoitus, 5 op KB02CMSMK5 (study unit)**

*Lecturers*  
Forest Officer Antti Väättäinen

*Objectives*  
Students will be competent in measuring/evaluating tree stand codes in a forest region using various methods and in calculating the results using the measurement information. They will also be competent in evaluating methods and the results they yield. Students will be able to make and use the necessary maps needed in the profession, and they will have command of the various methods used in remote sensing. They will also know how to utilise aerial photographs in various tasks.

### *Content*

- Sample plots in forests, evaluation of sample plots
- Evaluating patterns
- Multi-source surveying methods
- Reading maps
- Surveying methods
- Basics in remote sensing

### *Literature / Study Material*

- Auvinen P. 1997 or later. Metsänmittaus.
- Metsän mittaus ja kartoitus. Silva Carelica 40
- Husch B. et al. 2003. Forest Mensuration
- Tapion taskukirja 2002
- Auvinen et al. 1997. Metsän kartoitus
- Publications by the National Land Survey of Finland.
- Websites
- Other material as indicated during lectures

### *Learning Methods*

- Online studying
- Assignments
- Exercises
- Field training

### *Assessment*

- Active participation in assignments
- Continuous demonstration of knowledge
- Exam
- Grading based on a scale of 1–5

### *Prerequisites*

- Mathematics
- Statistics
- Introduction to Silviculture and Forest Planning

### *Languages of Instruction*

Finnish

## **Paikkatieto- ja paikannusjärjestelmät, 5 op KB02BMTPJ5 (study unit)**

### *Lecturers*

Forest Officer Antti Väättäinen

### *Objectives*

Students will understand the principles of geographic information systems (GIS) and know how to apply their knowledge in their professional work. They will be competent in utilising various positioning systems needed in their professional field and in assessing the suitability of various methods for various tasks.

### *Content*

- Co-ordinates, geographic information and GIS
- Information acquisition, choosing appropriate information, reporting and visualization
- Satellite positioning systems (GPS, Glonass, Galileo) and methods that utilise them (absolute, differential and relative positioning)
- GSM positioning and other positioning systems

### *Literature / Study Material*

- Miettinen S. 2006. GPS-käsikirja. WSOY.
- Websites
- Appropriate sources

### *Learning Methods*

- Online study
- Supervised assignments
- Exercises

### *Assessment*

- Assignments
- Continuous assessment
- Grading based on a scale of 1 to 5

### *Prerequisites*

Introduction to Information Technology

### *Languages of Instruction*

Finnish

## **Planning and information systems, 4 op KB02CMSST4 (study unit)**

### *Lecturers*

Forest Officer Raimo Jaakkola, MSc

### *Objectives*

Students will learn to use different methods of collecting, processing and publishing information needed in decision-making. They will be competent in using forest management plans in various decision-making situations.

### *Content*

- Concepts related to forestry planning and decision-making
- Methods
- Calculation and data processing systems

### *Literature / Study Material*

- Pukkala. 2007. Metsäsuunnittelun menetelmät.
- Paananen et al. 2006. SOLMU Metsäsuunnitelman maastotyöopas.
- Other material as indicated by the lecturer

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination. Evaluation based on a scale of 1 to 5.

### *Languages of Instruction*

Finnish

### *Further Information*

Online studies: 1 cr

## **Forest Planning Practices, 4 op KB02CMSHA4 (study unit)**

### *Lecturers*

Forest Officer Raimo Jaakkola, MSc

### *Objectives*

Students will learn to create a forest management plan with consideration of the forest owner's needs, sustainable development as well as the requirements of appropriate silviculture.

### *Content*

- Collecting field data
- Recording the data
- Calculations and output data

### *Literature / Study Material*

- Paananen et al. 2006. SOLMU Metsäsuunnitelman maastotyöopas.
- Other material as indicated by the lecturer.

### *Learning Methods*

Exercises

### *Assessment*

Approved forest plan

### *Prerequisites*

- Planning and Data Processing Systems
- Introduction to Mapping and Remote Sensing
- Forest Mensuration
- Growing Forests
- Forest Regeneration

### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 1 cr

## **Wood procurement, 9 op KB02BPHPH9 (study unit)**

### *Lecturers*

Forest Officer Ossi Vuori

### *Objectives*

Students will have a comprehensive understanding of the processes involved in purchasing wood products in a customer-oriented way (purchasing, logging, long-distance transportation, and measuring). Students will be familiar with the rules for buying and selling wood and wood products, be competent in evaluating stands marked for cutting, and know how to fill out documents associated with wood trade. They will be familiar with the principles and methods associated with logging as well as with regional entrepreneurship and enterprises dealing in machinery. Students will also be competent in making a logging plan, which considers cost structures and cross-cutting control, and making measurements, and they will have command of the procedures used in making measurements. Finally, students will be familiar with field-related IT systems, occupational safety, procedures for long-distance transportation and supervision of transportation, as well as the principles of entrepreneurship.

### *Literature / Study Material*

- Uusitalo J. 2003. Puunhankinnan perusteet.
- Handouts and online material as indicated by the lecturer.

### *Learning Methods*

- Lectures
- Research summaries in groups
- Field trips
- Practical assignments in the forest and classroom

### *Assessment*

- Approved assignments and exercises
- Exams
- Grading based on a scale of 1 to 5

### *Prerequisites*

Introduction to Purchasing Wood Products and Logistics

### *Languages of Instruction*

Finnish

## **Forest roads, 3 op KB02CPHMT3 (study unit)**

### *Lecturers*

Forest Officer Ossi Vuori

### *Objectives*

Students will be familiar with the planning, construction and implementation of domestic forest roads. Upon completion of the course, students will be familiar with the different forest road categories and their structures, the factors influencing forest road planning, construction and maintenance, as well as the legislation and regulation concerning forest roads. Further, students will be competent in making forest road construction plans.

### *Content*

- Legislation concerning private roads, the environment and soil
- Technical structure of forest roads
- Planning, construction and implementation
- Maintenance of forest roads

### *Literature / Study Material*

- Metsäteho. Metsätieohjeisto. 2001. Law and decree concerning private roads.
- Metsätalouden Kehittämiskeskus Tapio. Metsätiet ja metsäluonto. 2003.
- Finnish Road Association. Tiekunta ja tieosakas. 2001.

### *Learning Methods*

Lectures, field work, and excursions

### *Assessment*

- Exam on theory
- Approved exercises
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **ORIENTATION STUDIES, 25 op KB02C70 (study entity)**

Students choose their preferred track of study during their second year of study. Courses in their chosen track must be completed in modules. Students begin the compulsory courses for their track in the second year of their studies, but the majority of the courses are completed in the third year. Upon completion of these courses, students concentrate in elective courses and their final thesis in their fourth year of study. Compulsory modules in the Silviculture Track include the Silviculture I, Forest Planning I and Wood Purchasing I. Likewise, the advanced module that is most closely related to a student's thesis topic (Silviculture II or Forest Planning II or Wood Purchasing II) is compulsory. The final thesis and last practical training period must be integrated into the track studies. Compulsory modules in the Nature and Rural Tourism Track include Introduction to Tourism, Nature Travel as a Resource, and Entrepreneurship in Tourism. The final thesis and last practical training period must be integrated into the track studies. Compulsory modules in the Forestry and Timber Trade Track include Wood Technology, and Marketing I and II. The final thesis and last practical training period must be integrated into the track studies.

## **Bioenergy business and heat-entrepreneurship, 5 op KB02CBELY5 (study unit)**

### *Lecturers*

- Risto Lauhanen, DSc (Agr. and For.)
- Forest Officer Heikki Holma, DSc (Econ. and Bus. Adm.)
- Esa Koskiniemi, MSc

### *Objectives*

Students will know the basic terminology and definitions associated with the bioenergy business as well as the risks and possibilities of the heating business.

### *Content*

- Energy business

- Heatig business
- Business planning

#### *Literature / Study Material*

As indicated in Moodle.

#### *Learning Methods*

- Lectures
- Business plan

#### *Assessment*

- Active participation
- Business plan
- Examination
- Grading based on a scale of 1 to 5

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Online studies: 3 cr
- Research and development: 3 cr

### **Forest energy – procurement and utilization, 5 op KB02CBEHP5 (study unit)**

#### *Lecturers*

- Risto Lauhanen, DSc (Agr. and For.)
- Jussi Laurila, MSc (Agr. and For.)
- Forest Engineer Hannu Humalamäki

#### *Objectives*

Upon completion of the course, students will understand the basics of the procurement logistics and the use of forest energy and be familiar with work safety. They will also know how to measure fuel wood and be aware of the expenses involved and financial assistance available. In addition, students will be familiar with environmental issues and research activities in the field and be able to determine suitable objectives for procuring forest energy and assess the quality of working sites.

#### *Content*

- Forest energy procurement integrated into the procurement of commercial timber
- Silviculture with regard to the production of forest energy
- Machines and equipment
- Costs
- Occupational safety
- Choosing a site for forest energy.

#### *Literature / Study Material*

- Hakkila P. 2004. Puuenergian teknologiaohjelman loppuraportti. TEKES.
- Lauhanen R. & Laurila J. 2008b. (eds.). Bioenergian hankintalogistiikka.
- Case studies from South Ostrobothnia. University of Applied Sciences publication B, report 33. pp. 138. Online publication:  
[http://kirjasto.seamk.fi/includes/file\\_download.asp?deptid=1953&fileid=2722&file=SeamkB33.pdf&pdf=1](http://kirjasto.seamk.fi/includes/file_download.asp?deptid=1953&fileid=2722&file=SeamkB33.pdf&pdf=1)
- Metsäteho. 2008. Metsäenergian hankinnan tulostalvosarja.

#### *Learning Methods*

Lectures, field exercises, literary assignments.

#### *Assessment*

- Active participation
- Summary of research: pass/fail
- Field exercises



- Examination

*Languages of Instruction*  
Finnish

*Further Information*

- Online studies: 3 cr
- Research and development: 2 cr

## **Marketing intelligence, 5 op KB02CLIMH5 (study unit)**

*Lecturers*  
Forest Officer Mirja Jääskeläinen

### *Objectives*

Students will be introduced to the means, tools and methods for obtaining and mediating market intelligence and to the general sources of market intelligence in the fields of forestry and timber trade in particular. Students will become familiar with micro- and macro-level research and marketing information systems, as well as with how to perform market research in the fields of forestry and timber trade with emphasis on the marketing environment of the wood product industry. Upon completion of the course, students will:

- be competent in systematically utilising market intelligence sources for the forestry and timber trade fields,
- be competent in purposefully utilising information and communications technology in obtaining, processing, storing, distributing, and presenting information,
- have enhanced their knowledge of the markets, marketing and associated issues in the fields of forestry and timber trade, especially in the wood product industry,
- be familiar with market intelligence systems in the fields of forestry and timber trade and be competent in analysing such systems,
- understand the significance of market intelligence as part of the operations in an enterprise and the development of those operations,
- be competent in planning a field-related market study, determining the processes involved in the research process, comparing the advantages and disadvantages of the various ways to gather data, choosing an appropriate method for their own research and in writing an academic text, and
- understand the significance of doing market research as part of an enterprise's information acquisition system.

### *Content*

- Part 1: Managing market intelligence – domestic and foreign markets in forestry, significant market areas and competition, forestry products and marketable products, purchasing and consumer behaviour, and organisations involved in marketing forestry products.
- Part 2: Market research in forestry and timber trade, data systems, planning marketing and execution, demand and supply as well as production of forestry products, markets for raw timber, competition in the forestry product markets, distribution systems, and customers.
- Part 3: Market research and ethics in research, defining the research problem and objectives, compiling a research plan and determining information needs, and gathering information, processing and analysing it.

### *Literature / Study Material*

- Markkinatieto yrityksen kansainvälistymisessä. 2001. Fintra publication no. 18.
- Juslin H. and Hansen E. 2002. Strategic Marketing in the Global Forest Industries (assigned pages). Authors Academic Press.
- Lotti L. 2001. Tehokas markkina-analyysi. WSOY.
- Material given for assignments
- Web-pages and databases
- Research pages in both Finnish and English
- Other material to be announced at the beginning of the course

### *Learning Methods*

- Lectures
- Supervised assignments to be done independently and in groups + presentations

### *Assessment*

The grade for the course is based on the three parts, assignments and possible written exam. Grades are given on a scale of 1–5.

*Languages of Instruction*  
Finnish

## **Law merchant and law of obligations, 3 op KB02CLIKV3 (study unit)**

*Lecturers*  
Raittila Erkki, MSc

*Objectives*  
Students will become familiar with the regulations of commercial, liability and contract legislation regulating business operations.

*Content*

- Doing business with movable property and premises
- Contract legislation
- Consumer protection
- Promotion of competition
- Debt relationships
- Compensation for damage

*Literature / Study Material*

- Kivelä & Nordel: Yrittäjän oikeutta
- Legislation as indicated

*Learning Methods*  
Lectures and exercises

*Assessment*

- Examinaton
- Grading based on a scale of 1 to 5

*Languages of Instruction*  
Finnish

*Further Information*  
Online studies: 1 cr

## **Marketing management, 4 op KB02CLIMJ4 (study unit)**

*Lecturers*  
Forest Officer Mirja Jääskeläinen

*Objectives*  
Students will become familiar with the planning and managing of marketing. They will be competent in compiling a marketing plan for a case company using their previously acquired knowledge. Upon completion of the course, students will

- understand marketing as a part of a company's strategic business planning and management,
- acquire profound knowledge of the model of environmental marketing and the knowledge environment model and understand the significance of their operationalisation and implementation,
- understand the differences and connections between the strategies for consolidates, overall business, and marketing, as well as the connections strategies have to organisational structures, procedures and operations schemes,
- understand the more common strategic and operative management standards, which are also feasible to use in marketing management,
- be competent in assessing the development that takes place in the field and the impact it has on a company's marketing, and
- be competent in applying the knowledge they learn when compiling a marketing plan for a case company.

*Content*

- Strategic and operative planning and management of marketing
- Model of environmental marketing and the knowledge environment model

- Strategic decisions, structures, procedures and operations schemes in marketing

#### *Literature / Study Material*

- Juslin H. and Hansen E. .2002 Strategic Marketing in the Global Forest Industries (assigned pages). Authors Academic Press.
- Juslin H. & Neuvonen J. 1997. Metsäteollisuustuotteiden markkinointi. Ministry of Education.
- Other material to be announced at the beginning of the course.

#### *Learning Methods*

- Lectures
- Supervised assignments
- Field trips
- Exam

#### *Assessment*

- Active participation
- Assignments
- Exam
- Grading based on a scale of 1 to 5

#### *Languages of Instruction* Finnish

### **Kauppa ja kuljetuksen asiakirjat, 3 op KB02CLIKA3 (study unit)**

#### *Lecturers*

Forest Officer Mirja Jääskeläinen

#### *Objectives*

Students will become familiar with the documents used in domestic and foreign trade and commerce. Emphasis is placed on the technology for the trade and commerce of forestry products. Upon completion of the course, students will

- have command of the protocol for trade and commerce and understand its significance in business and in making business agreements,
- be familiar with the types of contracts used in the trade and commerce of forestry products,
- be aware of the status of trade agreements as a basis for associated ancillary contracts,
- be competent in compiling the documents needed for business negotiations, trade agreements, and purchasing, as well as in making commissions for ancillary contracts,
- be competent in ensuring the documents for business transactions, payments and delivery of products are correct (both Finnish and English versions), and
- be aware of domestic and foreign trade organisations and the services for promoting business and internationalisation offered by associated companies.

#### *Content*

- Business transactions, ways of doing business and trade agreements
- Other documents
- Distribution alternatives
- Trade organisations and the services they offer
- Modes of internationalisation

#### *Literature / Study Material*

- Handouts: forms, document templates, vocabulary
- Clauses, etc. published by the Chamber of Commerce
- Other publications to be announced at the beginning of the course

#### *Learning Methods*

- Lectures
- Supervised assignments
- Field trips
- Exam

### *Assessment*

- Active participation
- Assignments
- Exam
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **Forest Tree Breeding and Plant Construction, 2 op KB02CMHTA2 (study unit)**

### *Lecturers*

Forest Officer Lotta Jaakkola

### *Objectives*

Students will be familiar with the basics of seed and seedling production. They will understand the physiology, handling and purchasing process of the seeds of trees that grow in Finland and how to grow forest trees, as well as the cost calculations involved in growing. They will also be aware of the stages of growth of seedlings, requirements concerning quality, and price formation. Students will be familiar with the guidelines and requirements related to the trade of forest tree seeds and seedlings, as well as with tree breeding and the basic methods of breeding.

### *Content*

- Types of seeds for forest trees and their basic properties
- Seed production, purchase and handling
- Methods of assessing the quality of seed
- Seedling material
- Common seedling pests
- Purchase and reception of seedlings
- Storing and transport of seedlings
- Basics of tree breeding

### *Literature / Study Material*

- Rikala R. 2002. Metsätaimiopas.
- Nygren M. 2003. Metsäpuiden siemenopas.
- Nieminen & Tavailla. 1987. Metsäpuiden taimien kasvatus.
- Long-term tree breeding programme.

### *Learning Methods*

Lectures, field trip to a nursery

### *Assessment*

- Written exam
- Evaluation based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **Maintenance of Forest Drainage Area, 3 op KB02CMHOJ3 (study unit)**

### *Lecturers*

Forest Officer Antti Väättäinen, MSc

### *Objectives*

Students will be competent in compiling a maintenance plan for a forest drainage area taking into account environmental issues and logistics. They will have command of basic knowledge in forest management and be capable of applying that knowledge in practice.

### *Content*

- Significance of forest drainage
- Planning and implementation of maintenance drainage
- Environmental impacts and taking them into consideration

- Measures related to the management of forest drainage area

#### *Literature / Study Material*

- Instructions on forest management by Tapio.
- Joensuu et al. 2007. Metsätalouden vesiensuojelu.
- Metsäteho 1998. Ojitusalueiden puunkorjuu.
- Tapio 1999. Ojitettujen soiden puuntuotanto ja ympäristöhoito.
- Water Act.
- Act on the Financing of Sustainable Forestry decrees as well as application guidelines by the Ministry of Agriculture and Forestry.
- Other material as indicated by the lecturer.

#### *Learning Methods*

- Lectures
- Online study
- Assignments
- Field exercises

#### *Assessment*

- Active participation in exercises
- Continuous demonstration of learning
- Exam
- Grading based on a scale of 1 to 5

#### *Prerequisites*

- Forest Soil
- Growing Forests
- Forest Regeneration

#### *Languages of Instruction*

Finnish

#### *Further Information*

Online studies: 1 cr

## **Forest pathology and damages, 3 op KB02CMHPA3 (study unit)**

#### *Lecturers*

Forest Officer Lotta Jaakkola

#### *Objectives*

Students will be competent in identifying the more significant factors or organisms, animals, insects and microbes that damage timber and living trees, as well as the types of damage each source causes. They will apply their knowledge to forest management and the protection against damage. Students will also be competent in abiding by relevant regulations and guidelines for protection and using pesticides.

#### *Content*

- Biotic and abiotic damage, sources of damage, and identifying sources of damage
- Economic significance of forest damage
- Prevention against forest damage
- Diversity of nature and forest damage
- Legislation pertaining to forest damage
- Forest insurance

#### *Literature / Study Material*

- Uotila A. & Kankaanhuhta V. 1999. Metsätuhojen tunnistus ja torjunta. Kustannusosakeyhtiö Metsälehti.
- Kurkela T. 1994. Metsän taudit. Otatiето Oy.
- Nuorteva M. 1999. Metsähyönteisten maailmasta. Tremex Press Oy.
- Metla's website.
- Other material as indicated during lectures.

### *Learning Methods*

- Lectures
- Identification of species

### *Assessment*

- Written exam
- Test on the identification of species
- Grading based on a scale of 1 to 5

### *Prerequisites*

Categorisation of Growth Areas

## **Silviculture in northern Finland, 2 op KB02CMHPS2 (study unit)**

### *Lecturers*

Forest Officer Antti Väättäinen, MSc

### *Objectives*

Students will understand the special features of the silviculture in Northern Finland.

### *Content*

Basics of silviculture and the requirements set by other forms of forest utilisation in Northern Finland.

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Independent study
- Trip to Lapland

### *Assessment*

- Assignments
- Participation in trip to Lapland
- Pass/fail

### *Prerequisites*

- Forest Regeneration
- Growing Forests

### *Languages of Instruction*

Finnish

## **Real estates and pricing, 3 op KB02CMSKH3 (study unit)**

### *Lecturers*

Forest Officer Raimo Jaakkola, MSc

### *Objectives*

Students will understand the legislation and restrictions related to using and controlling real estate. They will be competent in applying the more common methods of valuating forests.

### *Content*

- Valuation methods
- Formation of property

### *Literature / Study Material*

- Tapion taskukirja, latest edition
- Other material as indicated by the lecturer

### *Learning Methods*

- Lectures
- Assignments

### *Assessment*

- Exam
- Grading based on a scale of 1 to 5

### *Prerequisites*

- Commercial law
- Law of Obligations

### *Languages of Instruction*

Finnish

## **Utilization of GIS, 2 op KB02CMSPH2 (study unit)**

### *Lecturers*

Forest Officer Antti Väättäinen

### *Objectives*

Students will be aware of the opportunities offered by GIS and be competent in utilising the more common methods of analysis when using GIS.

### *Content*

- Sources of information
- Analysis methods of screen and vector data
- Visualization
- Developmental outlooks of the GIS

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Online learning
- Guided exercises and assignments closely associated with the courses set as prerequisites to this course

### *Assessment*

- Exercises
- Continuous demonstration of knowledge
- Pass/fail

### *Prerequisites*

- Introduction to Geographical Positioning Systems
- Introduction to Surveying

### *Languages of Instruction*

Finnish

## **Wood procurement project, 10 op KB02CPHPR10 (study unit)**

### *Lecturers*

- Forest Officer Ossi Vuori Ossi
- Forest Engineer Mauri Pienimaa Mauri

### *Objectives*

Students will be trained in duties pertaining to customer-oriented wood procurement (planning, monitoring, harvesting, purchasing, remote transportation, measuring timber) by actively participating in the duties in question. Upon completion

of the course, students will have advanced knowledge of procurement planning and budgeting, making offers in the wood procurement business, and planning harvests (including tree bucking matrices). They will be competent in measuring fibre wood, log consignments, and standard measurement consignments. Students will understand the practices associated with the transportation of timber.

### *Content*

Students will engage in practical training in buying and purchasing wood, planning harvests, monitoring the harvest environment and quality, measuring piles of wood, measuring logs, calibrating the measuring devices in a chopping machine, using data processing systems, communicating with students studying to use forestry machines, issues pertaining to occupational safety, and making agreements. Students will do the training in the school's forest, the classroom and using a wood chopper simulator. Students will also learn about the transportation of wood by traveling with a driver hauling timber.

### *Literature / Study Material*

- Uusitalo J. 2003. Metsäteknologian perusteet
- Handouts and online material as indicated by the lecturer

### *Learning Methods*

- Lectures
- Assignments
- Exercises
- Project work

### *Assessment*

- Approved assignments and exercises
- Exams
- Grading based on a scale of 1 to 5

### *Languages of Instruction*

Finnish

## **ELECTIVE STUDIES, 15 op KB02D (study entity)**

Students must choose elective courses worth at least 15 ECTS. Students may choose their elective courses according to their own interests, provided that the courses meet the requirements of their degree programme. Each year, the School of Agriculture and Forestry in Tuomarniemi offers a wide range of courses, including courses offered in co-operation with the centres for adult education. Students must ensure those courses, which are taken outside Tuomarniemi, are approved by their supervisor(s). The elective courses offered at Tuomarniemi vary each year. Some courses take place alongside other teaching while others are offered periodically at an appropriate time. More detailed information about the elective courses offered each year is located in the Study Guide and on the Intranet.

## **PRACTICAL TRAINING, 30 op KB20EHA (study entity)**

Studies at the university of applied sciences include compulsory practical training worth 30 credits. The training supports the achievement of the goals set for the degree, and it furthers students' experience of the working world. Additionally, it provides students with the readiness they need to work in designing and management. During their practical training, students deepen their knowledge of field-related tasks and of how work communities function, and they receive an opportunity to apply the knowledge and skills they have learned during their studies to practice. Students may also acquire data for their thesis while they do their practical training. Students are supervised throughout their training, and they are required to compile a plan in writing, concerning what they will do during their training, and submit it before their training begins. Students are required to keep a journal during their training period and write a report when the training period has ended. It is recommended that students complete part of their practical training abroad. The first practical training period takes place during the spring and summer of the students' first year of study. At this time, students familiarise themselves with the general tasks associated with forestry and with how forestry work is organised. After having successfully completed the first training period, students may begin subsequent training periods. The tasks performed during these training periods must support students' line of specialisation. Students do the subsequent practical training primarily during the summers following each semester. The last training period takes place during the spring of the students' last semester, and its purpose is to support the thesis writing process.

## **THESIS, 15 op KB02F (study entity)**



The compulsory final thesis, which students complete toward the end of their studies, provides them with an opportunity to apply in practice the skills and knowledge they have learned during their studies. The thesis may take the form of a survey, research study, or project in the areas of product development or design, which is then reported in writing. The final thesis also advances students' professional skills, opens doors to various organisations in the working world, and facilitates the students' transfer and adjustment to the tasks within their professional field. Students also learn to acquire and process information, to apply various research methods and to write an academic text independently, purposefully and systematically, while keeping with the set goals. Students are required to sit a Maturity Test in which they exhibit their knowledge of the Finnish or Swedish language as well as their knowledge of the topic of their thesis. Students are also obligated to save their thesis on the thesis database maintained at the Seinäjoki University of Applied Sciences according to the provided instructions. Funding for the thesis Commission by an employer: Appendix 1 of the Guidelines for Writing a Thesis (Seinäjoki UAS) contains a form for making a contract with an employer. There is no form for issues concerning copyrights, which may arise during the thesis writing process. The thesis supervisors and other lecturers will provide assistance in these matters if needed. Foundations and other sponsors

- Check the Internet to see what hits you get when you type the word funding into a search engine.
- <http://www.saatiopalvelu.fi/> => application periods for funding; this website also provides information about various foundations in alphabetical order with their contact details.
- <http://www.skr.fi/> => website for the Finnish Cultural Foundation; also contains information about regional foundations.
- [www.mmsaatio.fi](http://www.mmsaatio.fi) => Metsämiesten Säätiö (foundation for supporting and developing the field of forestry).
- <http://www.kollinsaatio.com/index.php?v=13> => Marjatta ja Eino Kollin Säätiö (foundation to support scientific and applied research)

Copyrights, patents, etc. A handout is available in the library. The same information in more detail is available at the links below:

- <http://www.minedu.fi/OPM/Tekijaenoikeus/?lang=fi> => copyright website of the Ministry of Education
- <http://www.kopioisto.fi/index.php?cid=kopioisto&mid=7> => Kopioisto handbook
- [http://www.edu.fi/virtuaalikoulu/lahteisiin/3\\_1.html](http://www.edu.fi/virtuaalikoulu/lahteisiin/3_1.html) => diverse website with various links
- <http://www.cs.tut.fi/~jkorpela/tekoik/index.html> => website with extensive information about copyrights by Jukka Korpela
- <http://www.finlex.fi/fi/laki/ajantasa/1961/19610404> => latest version of the Copyright Act
- <http://www.prh.fi/> => website for the National Board of Patents and Registration in Finland
- <http://www.yrityssuomi.fi/liston/perustajaninfo/page.lsp?r=2974&l=fi> => website for Enterprise Finland; contains information about patents and protecting one's expertise in general

Good scientific practices/Research ethics A handout is available in the library. The same information is available at the links below:

- <http://www.tenk.fi/> => website for the National Advisory Board on Research Ethics
- <http://www.metla.fi/netra/metla-strategia-2006-2010.htm> => see Metla's strategy and what may be considered good research
- <http://www.helsinki.fi/tutkimus/etiikka.shtml> => extensive databank, includes the instructions concerning ethics by the University of Helsinki

See also the Guidelines for Writing a Thesis (Seinäjoki UAS), pages 13–15 and the information sources and links indicated there. The guidelines are located at <http://intra.seamk.fi/opiskelijat/opinnaytetyo.htm>.

## Thesis, 15 op KB02FONON15 (study unit)

### Lecturers

Principle lecturers and field-related lecturers

### Objectives

When doing a final thesis on the university of applied sciences level, students work independently and purposefully under the guidance of their supervisor. During the thesis writing process, students

- familiarise themselves with the research and development of their profession,
- learn the traditions of doing research,
- practise solving problems and making decisions independently,
- produce a written report using appropriate academic language in Finnish or in another language, and
- gain experience in carrying out a purposeful project.

### Content

- Choosing a topic, learning about the topic and creating a frame of reference
- Making a thesis plan, thesis plan seminar

- Guided independent work
- Maturity Test
- Final seminar
- Participation in seminars

#### *Literature / Study Material*

- Guidelines for Writing a Thesis. Seinäjoki University of Applied Sciences.
- Supplementary instructions from the faculty

#### *Learning Methods*

Guided independent work

#### *Assessment*

- Approved Maturity Test: pass/fail
- Thesis: grading based on Seinäjoki UAS's criteria
- Grading based on a scale of 1 to 5

#### *Prerequisites*

Thesis Writing Process

#### *Languages of Instruction*

Finnish

#### *Further Information*

Research and development: 15 cr

# Degree Programme in Health Care and Social Services / Elderly Care (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Social Services and Health Care

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The pedagogic principles in the Degree Programme in Health Care and Social Services / Elderly Care are based on the constructivist theory and holistic perspective of learning. The constructivist theory of learning emphasises the subjectivity of the learner. The holistic perspective emphasises the many dimensions of the learner's holistic persona (intellectual, emotional, physical, artistic, spiritual and creative dimensions). Both perspectives emphasise learners' commitment and responsibility, the significance of values, self-evaluation and self-management. The holistic concept of learning, in particular, emphasises the meaningfulness of the knowledge to be learned and the support of the learner to enable him/her to achieve the learning outcomes possible for him/her. Furthermore, it emphasises societal and global responsibility.

The *content-related principles* in the Degree Programme in Health Care and Social Services / Elderly Care relate to knowledge in elder-oriented care and holistic care, multi-professional and multi-disciplinary knowledge, evidence-based and expert-level knowledge, relevance to the working world, internationalisation, and entrepreneurship.

*Elder-oriented care* refers to contents that elicit the unique experiential dimension of aging and the individual service needs an elderly person has, the latest policies and results in development, methods to support the health, well-being, ability to function and social participation of elderly people, ethical issues in elderly care, as well as the methods for and the areas needing development in field-related quality control systems and elderly care operations.

*Holistic care* refers to contents that teach students to see elderly people holistically, as individuals that enact their existence in many ways.

*Multi-professional and multi-disciplinary knowledge* is the structural foundation upon which the Degree Programme in Health Care and Social Services / Elderly Care and gerontologic expertise lies. The three large circles in the Competence Diagram above illustrate the basis for multi-professional work.

*Evidence-based knowledge* refers to the knowledge of the central and current research in elderly care, learning to analyse, evaluate and utilise research information, and to produce information that supports development. This creates a foundation for continuously following elderly-care research later as studies progress and to develop elderly care based on researched phenomena once students are graduated and in the working world.

*Expert-level knowledge* refers to contents that help students learn to analyse elderly care from a broad, multi-perspective and multi-disciplinary frame of reference. Students are encouraged to seek, use and produce multi-professional, innovative information to give them the knowledge and skills they need to develop quality services for the elderly and to engage in continuous self-development. The expert-level knowledge also comprises the professional ethics point of view, i.e. responsibility to elderly clients and society in one's professional work.

*Relevance to the working world* refers to contents that unite and reshape a new type of expertise in the sector of social welfare and health care that deals with elderly care. The programme's practical training is integrated into the theoretical studies to enable students to acquire the competences required in the working world. Course contents reflect that which is needed to develop elderly care to meet future needs in the profession. Thesis work and development projects also endeavour to develop elderly care by creating new types of operational structures and procedures. Courses in the last year of study particularly relate to administration, management of activities and the development of quality in elderly care.

Acquiring an *entrepreneurial frame of mind* (internal entrepreneurship) calls for a positive attitude toward autonomic growth and development in knowledge, skills and attitudes. Entrepreneurship is evident in students in their ability to take initiative and to actively think and work during their theoretical studies and practical training. Students learn about internal entrepreneurship through collaborative work in various environments, student groups and practical training organisations. As their studies progress, students acquire skills in external entrepreneurship in the form of employment.

*Internationalisation* manifests in the degree programme's course contents in the use of material in foreign languages and practical training abroad. The curriculum is structured in such a way that students can easily partake in a three-month practical training period in an elderly-care institution abroad during the autumn of their second year of study. Please see the section on internationalisation in the Study Guide.

The *didactic principles* in the Degree Programme in Health Care and Social Services / Elderly Care include: the subjectivity of the student, growth into self-directed individuals capable of self-evaluation, combination of theory and practice, investigative learning and development, co-operative learning and learning in groups, learning agreements, and professional growth.

According to the *constructivist theory of learning*, learning is the process of reconstruction, a learner's independent processing of new knowledge where the learner associates new knowledge with old structures of knowledge utilising those structures and readjusting them as a result of the new knowledge. The learning process is unique to each student. The constructivist theory of learning states that learners are the subjects of their own learning.

*Learners as subjects* means that learners are the central actor in their own learning. Learning success essentially depends on how well the learner acknowledges this notion. Studies in the degree programme involve an extensive amount of independent information acquisition, the evaluation and organisation of information, and seminar-based studying (problem-based learning). Learning manifests through personal investigation and work. Students' understanding of themselves as experts is strengthened through their own activities. Acknowledging one's subjectivity and responsibility prepares students for work in the field of gerontology. Learning to be the subject of one's learning develops students' sense of internal entrepreneurship.

*Self-direction and self-evaluation* are an essential part of being a subjective learner and reinforcing that aspect of learning. Self-direction and self-evaluation are based on an acknowledged, realistic and positive self-image and an adequate amount of independence. Self-direction is equivalent to students' internal entrepreneurship. Self-directed students are responsible to themselves, the student community, future elderly clients, and the elderly-care organisation, and for their own learning to become experts in elderly care. Students' self-evaluation is evident in their academic performance and growth into professionals. The primary objective of assessment by peers and teachers is to help students evaluate themselves and to form a clear, strong professional self-image.

The notion of *combining theory with practice* has its roots in the constructivist theory of learning whereby learning is always the subject's context-related activity. The periods of practical training in the Degree Programme in Health Care and Social Services / Elderly Care are closely connected to certain areas of theory. The learning experiences students acquire during their practical training periods are also examined in the light of theory. Students receive feedback from the training supervisor and the teacher. Students acquire experience in the assessment of their overall learning through learning journals, various assignments and through their practical training assessment. The numerical grade teachers give for the practical training is also seen as an important part of the assessment in the degree programme.

The principle of *investigative learning and development* is evident in the extensive seminar work in which students engage during their studies. The seminar work is based on assignments students complete in advance and, in particular, on various research reports pertaining to elderly care. Investigative and developmental study gradually forms into the investigative development of elderly care. During their last year of study, in particular, students do various types of research and projects in elderly-care organisations. For this reason, the exam material for each theoretical course contains research and research-based articles. The course descriptions in the curriculum contain information on how many credits students accrue for research and development in a particular course.

The *learning agreement* as an educational principle refers to the commitment of students to their own learning, the goals they have set and to the progression of their studies. During their practical training periods, students make a written learning agreement together with their supervisor, which contains learning objectives based on the general objectives of the course and their personal learning needs. Students then evaluate themselves on how well they have achieved their set objectives.

*Professional growth* as an expert in elderly care begins right from the start of students' academic career. During their second year of study, students reflect extensively on the functional domains and requirements of expertise of Bachelors of Social Services and Health Care as well as on their growth into professionals of the field. Later on, students advance their expertise and develop their perspectives concerning the ethics of elderly care and the professional ethics of Bachelors of Social Services and Health Care. Before they graduate, students also reflect extensively on their gerontologic expertise as a whole.

## PROFILE OF THE PROGRAMME

The purpose of the Degree Programme in Health Care and Social Services / Elderly Care is to produce experts who work primarily in the sectors and levels of social welfare and health care that deal with the aging. Bachelors of Social Services and Health Care are ethically committed to the promotion of the health and welfare of elderly people not only on the level of the individual, but also on the level of society.

The areas of expertise and duties of Bachelors of Gerontology (UAS) are as follows:

- A) Personal case management of an elderly person: evaluation of the elderly person's well-being and ability to function, survey of his/her needs for services, customisation of services to suit specific needs, and co-ordination of multi-professional activities.
- B) Planning, guidance and development of services for the families of elderly people as well as peer support activities.
- C) Contact work in care and treatment organisations for the elderly.
- D) Work with dementia patients and the development of related work.

- E) Planning, guidance, evaluation and development of services for the elderly in the public and third sectors.
- F) Work in various projects for the elderly.
- G) Work in elderly care on the national and international levels.

Expertise in elderly care constitutes a broad area of knowledge in the fields of health care, social welfare and gerontology and it is structured according to the diagram below.

The extent of the programme is 210 credits and it takes 3.5 years to complete. The degree programme comprises Basic Studies, Professional Studies, elective studies and a final thesis.

The Basic Studies consist of orientation courses, language courses, and courses pertaining to biology and medicine. During the Professional Studies, students learn about the work carried out in elderly care in the fields of social welfare and health care, the social welfare and health care services available in Finland, gerontology as the foundation of multi-disciplinary elderly care, elderly-care research, supporting elderly people's ability to function, ethics in elderly care, the care of an ill elderly person, methods in social work and elderly care, preventive and rehabilitative elderly care, and the care of patients with dementia. The Advance Professional Studies comprise courses in case management for elderly people, and the development and management of elderly care.

The Degree Programme in Health Care and Social Services / Elderly Care does not have separate lines of specialisation. All students participate in the course Development and Management of Elderly Care. The extent of the final thesis is 15 credits. Electives studies, which expand students' knowledge of elderly care, amount to 8 credits. The programme also consists of practical training (75 cr), which students carry out in various organisations that offer services for the elderly. The periods of practical training vary in length. Part of the practical training (1–3 months) may be completed abroad.

## KEY LEARNING OUTCOMES

### *Competence in the promotion of the health, ability to function and social participation of elderly people*

A Bachelor of Social Services and Health Care

- \* is able to analyse and support the well-being, ability to function and social participation in the different stages of aging.
- \* is able to predict and prevent alienation and risks to the ability to function of an elderly person.
- \* is able to promote the goals for well-being and health of an elderly person, his/her family and community.

### *Competence in serving clients*

A Bachelor of Social Services and Health Care

- \* is able to engage in preventive, caring rehabilitative elderly work.
- \* is able to combine and utilise gerontologic and geriatric information as well as information and procedures pertaining to health care and social welfare.
- \* is able to create a purposeful, helping and caring relationship with elderly clients and their families, which supports their ability to function and independence.
- \* is able to evaluate an elderly person's ability to function and cope and to plan and initiate services for elderly people with long-term illnesses and who live in problematic social situations.
- \* knows the special issues associated with the medical care of elderly people and is able to work according to the medical care plan of elderly people in medical care units within the area(s) stipulated in the plan.
- \* is able to survey the needs for elderly-care services and to produce and develop individualised service chains and supporting networks to reinforce the health, ability to function, and social participation of elderly people.
- \* is competent in working as an entrepreneur providing elderly services.

### *Competence in working with dementia patients*

A Bachelor of Social Services and Health Care

- \* has knowledge and skills to find and prevent illnesses that cause dementia.
- \* is able to plan and initiate services to promote the ability of a dementia patient to live at home and to support the family of the patient.
- \* is able to work in a dementia care unit as the initiator and developer of good care for dementia patients.
- \* is able to initiate innovative and activating procedures as part of rehabilitative care.
- \* is able to evaluate the quality of the care and services for people with dementia.

### *Competence in gerontechnology*

A Bachelor of Social Services and Health Care

- \* is able to evaluate an elderly person's need for aids to carry out everyday activities and to assist him/her in using them.
- \* is able to evaluate how well an elderly person's environment functions and to consider the need for technical equipment in that environment.
- \* is able to utilise IT and gerontechnology.

### *Ethical competence in elderly care*

A Bachelor of Social Services and Health Care

- \* respects elderly clients and the people working with them as unique, developing individuals who possess mental and physical resources.
- \* is able to evaluate and reflect upon one's activities as they relate to work with the elderly and to preserve one's ethical

sensitivity.

- \* has knowledge of the ethical problems gerontechnology generates and of the responsibility one has to reduce those problems.
- \* desires to guarantee elderly people and their families the rights and opportunities as stated in norms and guidelines.
- \* appreciates well-functioning, collegial and multi-professional work in elderly care.

#### *Competence in encountering and interacting with others in elderly care services*

A Bachelor of Social Services and Health Care

- \* is able to generate mutual relationships with elderly people, which are based on listening and relating to them and the desire to help them and care for them.
- \* is conscientiousness of another person's "otherness" and the ability to engage in an accepting, reflective relationship that promotes dialogue.
- \* is able to interact with elderly people who vary in their ability to function and level of health and their families.

#### *Cultural competence in elderly care*

A Bachelor of Social Services and Health Care

- \* has knowledge of clients' cultural commitment and command of the service processes that support their cultural identity and living environment.
- \* is able to promote the well-being, visibility, and active participation of elderly people belonging to cultural minorities as well as the interaction between people of different cultures.
- \* is able to examine organisational cultures within elderly communities and service units and to promote well-being in them.
- \* has knowledge of language and working cultures in the social welfare and health care sectors and ability to flexibly work in the various cultural arenas in elderly care.
- \* is able to continuously develop one's ability to work and interact with people of different cultures.

#### *Competence in utilising psychosocial and innovative methods in elderly care*

A Bachelor of Social Services and Health Care

- \* is able to utilise psychosocial and innovative methods in preventive and rehabilitative elderly care.
- \* has basic knowledge of music therapy and other innovative therapies in elderly care and ability to utilise that knowledge in a holistic way.
- \* is able to therapeutically assist elderly people in remembering, in both one-on-one sessions and in groups.
- \* is able to utilise empowering methods related to work with families, networks, groups and communities.

#### *Competence in guiding and instructing others*

A Bachelor of Social Services and Health Care

- \* is able to motivate and support the self-direction of elderly people and to individually and purposefully guide elderly clients and groups.
- \* has knowledge of how to guide elderly people and adults and awareness of how they learn.
- \* is aware that guidance and instruction are a part of development work in elderly care.

#### *Competence in project work*

A Bachelor of Social Services and Health Care

- \* is able to organise the needs arising from practical elderly care and to initiate feasible, clearly defined projects based on those needs.
- \* has knowledge of the normal sources of funding and ability to utilise them to develop elderly care.
- \* is able to work in various project duties and stages responsibly and independently utilising various networks of stakeholders and partners.
- \* is able to evaluate how well a project has progressed in its different phases and to report about and apply the results of the project.

#### *Competence in multi-professional activities and the support of them*

A Bachelor of Social Services and Health Care

- \* is able to introduce multidisciplinary elderly care expertise to be used by everyone.
- \* is able to utilise multi-professional and collective ways of working.
- \* is able to work on multi-professional teams responsibly and with consideration and respect for colleagues and with appreciation for mutual expertise and the desire to develop it.

#### *Competence in organising and managing services for the elderly*

A Bachelor of Social Services and Health Care

- \* is able to organise, guide, manage and develop services for the elderly in the public, private and third sectors.
- \* is able to promote knowledge of the basic mission of elderly care in the work community one manages and to envision the future of elderly care.
- \* is able to set clear goals and prioritise them in guiding and supervising others and in developing operations and to motivate personnel in achieving the set goals.
- \* is able to promote a positive attitude toward work.
- \* is able to pilot the personnel in elderly-care service units in co-operation, growth and change and to encourage the sharing of expertise in elderly-care networks.
- \* is able to utilise essential methods for performing quality work when developing services for the elderly.

### *Competence in research and development in elderly care*

A Bachelor of Social Services and Health Care

- \* is able to apply multi-disciplinary information concerning elderly care and the working world to the development of elderly care.
- \* is able to develop evidence-based practices and utilise client- and organisation-based methods in the development work.
- \* knows the opportunities multi-disciplinary, networking-based work offers in the generation of information and development of elderly care.

### *Societal competence*

A Bachelor of Social Services and Health Care

- \* understands one's responsibility for creating a positive conception of aging in society and endeavour to promote elderly-care policies based on that conception.
- \* understands the structures and operational systems of society and services for the elderly and of how to influence them.
- \* understands the essential legislation, regulations, target programmes and reform programmes guiding elderly care and employment.
- \* is able to participate in creating political strategies for elderly care on the municipal level.
- \* is able to actively identify and monitor local, national and global phenomena and processes that have an impact on the status of the elderly in society and on the operational conditions of elderly care.
- \* is able as an expert to partake in public discussion concerning the quality of life of the elderly and services for the elderly and to develop them.

## **OCCUPATIONAL PROFILES**

The work of a Bachelor of Social Services and Health Care on the level of the individual involves the provision of proactive, investigative, preventive, supportive, caring and rehabilitative services for the elderly. Emphasis in the work of a Bachelor of Social Services and Health Care is placed on the well-being of elderly people and the evaluation of their ability to function and the services they may need, personal service consultation, work in elderly care and treatment organisations, the organisation of service chains and multi-professional elderly services, and the support of the families of elderly people. On the level of elderly-care organisations, the work of a Bachelor of Social Services and Health Care involves the development and guidance of services and the development of personnel working in elderly care.

On the societal level, the work of a Bachelor of Social Services and Health Care involves the evaluation and development of the service systems for the elderly as well as taking action in society and politics where elderly care is concerned. There are a number of job titles for Bachelors of Gerontology (UAS) in the field of social welfare and health care at the moment. Among them are case manager, nurse, counsellor, deputy counsellor, social welfare counsellor, director of development, and director of elderly care.

## **ACCESS TO FURTHER STUDIES**

Students with a Bachelor's Degree in Health Care and Social Services / Elderly Care are eligible for further studies in a university of applied sciences master's degree programme in social welfare, health care (health promotion) and social welfare and health care (development and management of social work and health care). (University of applied sciences act 351/2003, in Finnish)

## **COURSE STRUCTURE**

The courses in the degree programme are available at VANTYO 2009 (1.9.2009), 210 cr.

The Programme Structure Chart indicates the structure of the programme and how the studies progress each academic year. Students complete the courses in the order indicated on the chart. They must have completed previous studies before they can begin the next study modules.

## **EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

## **CONTACT PERSONS**

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## Degree Programme in Health Care and Social Services / Elderly Care (In Finnish) (1.9.2009) VANTYO 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KFG11A	<b>BASIC STUDIES</b>					<b>20</b>
KFG11A1	<b>Polytechnic studies and study skills</b>					<b>5</b>
KFG11A10197	Studying at Polytechnic	x				3
KGF11A91003	Co-operation skills	x				2
KFG11A2	<b>Language studies</b>					<b>9</b>
KGF11A0051	Native language and communication	x				3
KGF11A93009	English	x				3
KGF11A93010	Swedish	x				3
KFG11A3	<b>Basic biological and medical studies</b>					<b>6</b>
KGF11A008	Anatomy, physiology and microbiology	x				3
KGF11A009	Introduction to medical science and general internal medicine and surgery	x				3
KFG11B	<b>PROFESSIONAL STUDIES</b>					<b>124</b>
KFG11B1	<b>The knowledge base in the health and social field</b>					<b>14</b>
KFG11B001	Analysis of the concepts in the social and health field	x				2
KFG11B002	Theoretical foundation of nursing	x				2
KFG11B003	Theoretical foundation of the work in the social field	x				2
KFG11B004	Integrating seminar: nursing and social field work	x				2
KFG11BE005	Practical training 1: Well-being of the old individual and of the community in nursing home	x				6
KFG11B2	<b>Finnish society and social and health services</b>					<b>13</b>
KFG11B006	Finnish society and social policy	x				3
KFG11B007	Morbidity and health policy in Finland	x				3
KFG11B008	Aging and society and elderly people's social problem situations	x				3
KFG11B039	Laws and decrees regulating elderly policy	x				2
KFG11BE008	Practical training 2: The social and health service delivery system	x				2
KFG11B3	<b>Gerontological studies</b>					<b>17</b>
KFG11B009	Gerontological theories	x				2
KFG11B0101	Changes brought on by aging and elderly people's functional capacity	x				3
KFG11B011	Experienced old age	x				3
KFG11B013	Practical training 3: Analysis of the functional capacity and living conditions of home-living	x				2
KFG11BE014	Practical training 4: Promotion of elderly people's functional capacity in sheltered housing		x			7
KFG11B4	<b>Elderly research</b>					<b>10</b>
KFG11B005	Introduction to scientific thinking		x			2
KFG11B016	Quantitative research methods		x			2
KFG11B015	Qualitative research methods		x			2



KFG11B017	Action research			x		2
KFG11B018	Analysis and summary of elderly research			x		2
KFG11B5	<b>Analysis of the profession and professional growth</b>					<b>4</b>
KFG11B019	Job description and professional qualifications of Bachelors of Elderly Care		x			2
KFG11B021	Analysis of the student's personal professional qualifications				x	2
KFG11B6	<b>Ethics in elderly care</b>					<b>4</b>
KFG11B022	Ethics of elderly care and of Bachelors of Elderly Care		x			2
KFG11B023	Essay and seminar		x			2
KFG11B14	<b>Counselling in elderly care</b>					<b>9</b>
KFG11B024	Teaching and counselling			x		2
KFG11B025	Supervision of reminiscence		x			2
KFG11B026	Music therapy and creative therapies in elderly care		x			3
KFG11BE027	Practical training 5: Creative activities in elderly care			x		2
KFG11B8	<b>Supporting elderly people's functional capacity</b>					<b>10</b>
KFG11B028	Meeting the basic needs and supporting the daily activities of the elderly		x			3
KFG11B029	Elderly people's nutrition and special diets	x				2
KFG11B030	Practical training 6: Supporting elderly people's functional capacity at home		x			5
KFG11B9	<b>Nursing sick elderly people</b>					<b>21</b>
KFG11B031	Geriatrics		x			2
KFG11B032	Drug care of elderly people and clinical pharmacology		x			3
KFG11B050	Nursing sick and dying elderly people		x			4
KFG11B036	Practical training 7: Nursing sick elderly people in the ward		x			6
KFG11B037	Practical training 8: Home nursing of elderly people		x			6
KFG11B11	<b>Supporting elderly people by social work interventions</b>					<b>6</b>
KFG11B040	Family work and networking in elderly care		x			2
KFG11B041	Group and community work in elderly care		x			2
KFG11B042	Empowering interventions in elderly care		x			2
KFG11B12	<b>Preventive and rehabilitative elderly care</b>					<b>7</b>
KFG11B044	Rehabilitation and physiotherapy of elderly people		x			2
KFG11B045	Supporting family care–giving			x		2
KFG11BE046	Practical training 10: Rehabilitation supervision of groups of elderly clients/family care–givers			x		3
KFG11B13	<b>Care and rehabilitation of dementing elderly people</b>					<b>9</b>
KFG11B048	Care of dementing elderly people			x		2
KFG11BE049	Practical training 12: Care of dementing elderly people and promotion of their functional capacity			x		7
KFG11C	<b>ADVANCED STUDIES</b>					<b>43</b>
KFG11C2	<b>Case management in elderly care</b>					<b>10</b>
KFG11C2001	Integration seminar of elderly care services				x	3
KFG11C2002	Practical training 13: Management and co–ordination of preventive and rehabilitative elderly care se				x	7
KFG11C1	<b>Management and development of elderly care</b>					<b>33</b>
KFG11C001	Management and economics in elderly care services			x		5

KFG11C0021	Quality management in elderly care			x		2
KFG11C003	Project work as a tool in the development of elderly care				x	2
KFG11C004	Entrepreneurship in elderly care			x		2
KFG11CE0051	Practical training 14: Management and development of elderly care			x		13
KFG11CE0061	Practical training 15: Influencing in the field of elderly policy and services			x		2
KFG11CE0071	Practical training 16: Elderly care development project				x	7
KFG11D	<b>DIPLOMA WORK</b>					<b>15</b>
KFG11C008	Final thesis and maturity test			x		15
KFG11F	<b>FREE CHOICE STUDIES</b>					<b>8</b>

## Study Descriptions

### Polytechnic studies and study skills, 5 op KFG11A1 (study entity)

Students will be introduced to the educational aims of the Seinäjoki University of Applied Sciences, to their degree programme, to the courses and other activities offered by the university and to the staff and student support services. They will familiarize themselves with the curriculum required for geriatric care and come to see its aims and principles regarding pedagogy and contents. They will also become subjects of their own learning, capable of co-operation and self-directed studies. Finally, they will be introduced to sources of information, research methods and learn to use a PC and information networks as tools in their studies when acquiring, processing and producing information related to elderly care.

### Studying at Polytechnic, 3 op KFG11A10197 (study unit)

#### Lecturers

- Katriina Honkala, MSc
- Tellervo Pihlaja, MA
- Simo Ranta, MSc
- Hilikka Latva-Somppi, BA

#### Objectives

The students will gain an overall picture of Seinäjoki University of Applied Sciences, of the School of Health Care and Social Work, of the studies and other activities offered to them and of the student support services. They will become familiar with their own degree programme and start constructing a conception of its aims and scope and of the professional competences involved in their future profession. The students will also learn to use central information sources and networks. The students will learn to use a PC and peripherals independently, understand their role as users of information networks and know how to apply information technology in their future profession and its development. The students will learn to use common applications and to evaluate the reliability of the information. They will improve their information seeking skills needed during the studies and in elderly care and become aware of their ethical responsibility in the use of information technology.

#### Content

- Seinäjoki University of Applied Sciences
- School of Health Care and Social Work
- Student support services
- Degree Programme in Elderly Care
- Pedagogic principles and learning contents
- Progress of the studies
- Study practices
- Practical training periods
- Study techniques
- Feedback systems
- Study arrangements for each term
- Information seeking and sources of information in elderly care
- Information search and library services
- Information search exercises in the health care and social work field, in elderly care and on the Internet

- Independent assignments
- Available information technology and facilities
- Current practices in the health care and social welfare sectors
- Ethics and data protection
- Device management, editing systems
- E-mails, Winha student administration system, learning environments, Internet, search engines, Word, Excel, and PowerPoint

#### *Literature / Study Material*

- Study Guide
- Writing Academic Texts
- Instructions for obtaining information
- Material in the Moodle learning environment
- Other online material

#### *Learning Methods*

- Instructions of writing academic texts
- Instructions for obtaining information
- Contact teaching
- Online teaching
- Independent assignments
- Exam

#### *Assessment*

- Participation in lectures and individual tutorials
- Independent study and assignments
- Active participation in lessons
- Independent Moodle-based assignments
- IT and information acquisition assignments

### **Co-operation skills, 2 op KGF11A91003 (study unit)**

#### *Lecturers*

- Simo Ranta, MSc
- Tellervo Pihlaja, MSc

#### *Objectives*

The students will deepen their self-awareness by participating in group processes and learn to analyse their interaction skills with the help of a theoretical foundation.

#### *Content*

- Role of culture in the regulation of interaction
- Self-concept, ideal self, self-worth, self-esteem, values and attitudes in interaction
- Individuals' motivational factors, observation, dealing with difference and controversy professionally

#### *Literature / Study Material*

- Kopakkala A. 2005. Porukka, jengi, tiimi. Ryhmädynamiikka ja siihen vaikuttaminen. Edita. (assigned parts)
- Vilen M., Leppämäki P., Ekström. L. 2002. Vuorovaikutukseksellinen tukeminen sosiaali- ja terveysalalla. WSOY. (assigned parts)

#### *Learning Methods*

Group sessions and assignments

#### *Assessment*

- Active participation in sessions
- Analysis of personal growth, development and learning
- Assignment in advance, the instructions for which will be sent after potential students have accepted their placement in the university

## Language studies, 9 op KFG11A2 (study entity)

Objectives: Students will acquire adequate written and oral skills a foreign language and especially in their native language, which will allow them to communicate effectively in their future profession with elderly people. In Swedish, the second official language, students will possess the proficiency required of civil servants (Decree 256/95) and necessary for their professional practice and development (grades H4 or K5).

## Native language and communication, 3 op KGF11A0051 (study unit)

### *Lecturers*

To be announced.

### *Objectives*

The students will understand how the degree of formality and correct language usage are the foundation of written communication. They will be introduced to various types of information and learn to analyse and interpret them. They will participate in oral and writing assignments to learn argumentation and to develop their thinking. The students will learn to produce commonly used documents and be introduced to scientific writing. They will practise oral communication individually and in groups and study communication for meetings and negotiations.

### *Content*

- Research communication, academic writing and documentation
- Academic essay, summary, report, poster, journal
- Information literacy, media texts
- Basics of writing documents
- Preparing for oral communication situations, oral communication situations and their evaluation
- Interaction, verbal and non-verbal communication, methods of illustration
- Meetings and negotiations

### *Literature / Study Material*

- Repo, Irma & Nuutinen, Tahvo 2003. Viestintätaito. Opas aikuisopiskelun ja työelämän vuorovaikutustilanteisiin. Otava
- Instructions for Writing a Thesis: Seinäjoki University of Applied Sciences 2008
- Other material as indicated by the lecturer

### *Learning Methods*

- Lectures
- Oral and writing assignments
- Independent study

### *Assessment*

- Active participation in lessons
- Journal
- Examination

## English, 3 op KGF11A93009 (study unit)

### *Lecturers*

Mari Heinonen, MA

### *Objectives*

Students will be competent in giving information about themselves and their education. They will be familiar with the essential vocabulary and terminology used in health care, social welfare and elderly care, and they will be able to tell others about the work of a Bachelor in Elderly Care and the services available in health care, social welfare and elderly care. They will have the language skills they need in the more common work situations in elderly care to interview and advise elderly clients, for example. Students will be familiarised with academic English and be competent in reading academic texts.

### *Content*

- Vocabulary for studying in the Seinäjoki UAS
- Health care and social welfare terminology

- English for elderly care
- Introduction to academic English

#### *Literature / Study Material*

Material as indicated by the lecturer.

#### *Learning Methods*

- Demonstrative, inquiring teaching
- Written and oral exercises
- Independent study (practice summary + other assignments)

#### *Assessment*

- Criteria for assessing language skills in universities of applied sciences
- Numerical grade

#### *Prerequisites*

Skills equivalent to upper secondary school or tertiary school

### **Swedish, 3 op KGF11A93010 (study unit)**

#### *Lecturers*

Jaana Store, MA

#### *Objectives*

Students will enhance their oral, written and listening and communication skills in the Swedish language. They will learn essential field-related terminology, understand field-related texts and know how to summarise them in Swedish. They will also be competent in having conversations in Swedish about issues in elderly care.

#### *Content*

- Articles and summaries related to one's education, profession and elderly care
- Oral and written exercises in groups and in pairs about various situations in the working world

#### *Literature / Study Material*

Tuunan M. & Wallinheimo K. 2008. Flexsocial

#### *Learning Methods*

- Lectures
- Independent study
- Oral and written presentations

#### *Assessment*

- Active participation in the lessons
- Written exam
- Oral test
- Numerical grades 1–5

### **Basic biological and medical studies, 6 op KFG11A3 (study entity)**

Objectives: Students will be aware of the significance of the basic studies in medicine, as required in the Degree Programme in Geriatric Care, in constructing the professional skills of a geriatric care professional. They will acquire basic knowledge of the structure and functions of the human body and understand the significance of microbes to the health of human beings.

### **Anatomy, physiology and microbiology, 3 op KGF11A008 (study unit)**

#### *Lecturers*

- Harri Katajamäki, MA
- Leena Katajamäki, MSc

*Objectives*

The students will learn the structure, function and vocabulary of central body systems. They will learn where organs are located and know how the function of body systems maintains health. The studies will help them understand aging and the changes brought on by old age. The students will also study the role of microbes in health and pathology and gain a foundation for the study of infectious diseases, their treatment and asepsis in elderly care.

*Content*

- Tissues, bones, muscles
- Circulatory system
- Respiratory system and breathing
- Structure and function of the digestive system
- Urinary system
- Structure and function of the nervous system
- Microbes in the environment and useful microbes
- Types of microbes
- Immunology
- Principles of asepsis and elimination of microbes
- Infectious diseases and microbiological samples

*Literature / Study Material*

- Bjälle, J. G. et al. 2008. Ihminen, fysiologia ja Anatomia. Karhumäki
- E. et al. 2005. Mikrobit hoitotyön haasteena

*Learning Methods*

Lectures, discussion and assignments

*Assessment*

- Active participation in lessons
- Independent study
- Examination and mid-term tests

## **Introduction to medical science and general internal medicine and surgery, 3 op KGF11A009 (study unit)**

*Lecturers*

Juhani Laakso, MD

*Objectives*

The students will be introduced to the background and progress of various diseases and gain a foundation for the study of medical-surgical disorders and geriatrics. They will study the etiology, pathophysiology, examination and diagnostics of common medical-surgical disorders and learn to integrate medical-surgical knowledge with geriatrics and with the health promotion, care and rehabilitation of elderly patients. The students will learn to apply their knowledge when participating in the decision-making regarding their clients' care and rehabilitation and when counselling the clients and their families.

*Content*

Introduction to medical science: cardiovascular diseases, pulmonary diseases and diseases of the digestive system, metabolism and endocrinal disorders, musculo-skeletal disorders, emergency care of medical patients, introduction to surgery, tumours of the breast tissue, abdominal disorders, burns, orthopaedics and traumatology, thoracic and vascular surgery and urology.

*Literature / Study Material*

As indicated by the lecturer.

*Learning Methods*

Lectures and exam

*Assessment*

- Active participation in the lectures
- Successful completion of the exams (3)

*Prerequisites*

- Anatomy

- Physiology

## **PROFESSIONAL STUDIES, 124 op KFG11B (study entity)**

Students will advance their professional qualifications through the study of caring and nursing. They will work in the social field and care for the elderly and provide services for elderly citizens. Students will learn to analyse their own activities and service delivery systems from the point of view of the client, theory, experiential knowledge and ethics. They will learn to make independent decisions and to plan, implement and evaluate elderly care.

### **The knowledge base in the health and social field, 14 op KFG11B1 (study entity)**

Objectives: Students will learn to analyse central concepts in caring, nursing and in the social welfare field within various frameworks, and to explore the inter-relationship between individuals and their environment. They will also learn the central theoretical, ethical and philosophical foundations of caring, nursing and in the social welfare field, and acquire basic knowledge required in a professional, interactive and helping relationship. Students will also learn to seek, analyse and critically evaluate information independently and to practice collaborative learning and working techniques.

### **Analysis of the concepts in the social and health field, 2 op KFG11B001 (study unit)**

#### *Lecturers*

- Kari Jokiranta, MSSc
- Simo Ranta, MSc (Nursing)

#### *Objectives*

Students will practise conceptual thinking and reflect on the interrelationships between concepts. They will learn to analyse central concepts in the health-care and social welfare field and to explore their contents within various frameworks. They will also learn what kinds of contents are generally accepted in the health-care and social welfare sector.

#### *Content*

The topics dealt with during this course include conceptions of human nature, welfare, way of life, lifestyle, life management, conceptions of health/illness, health promotion, insecurity, social problems, social exclusion, social support, the human being/environment, society and community, nursing, work in the social field/social work, theme seminar.

#### *Literature / Study Material*

- Ahlqvist K. & Ahola A. (eds.). 1996. Elämän riskit ja valinnat: Hyvinvointia lama-Suomessa
- Eriksson K. et al. 2007. Hoitotiede. (assigned parts)
- Luoma, M–L. Elämänlaatu. In Voutilainen P. & Tiikkainen P (eds.). 2008. Gerontologinen hoitotyö
- Perttilä K. 1999. Terveiden edistäminen kunnan tehtävänä. (assigned parts)
- Pohjolainen P. & Syren I. (eds.). 2006. Ikääntyvien elämäntyylit
- Raitasalo R. 1996. Elämäntilannetta etsimässä (assigned parts)
- Vertio H. 2003. Terveiden edistäminen. Tammi. (assigned parts)
- Other material distributed by the lecturer

#### *Learning Methods*

Concept analysis, theme-based seminar and discussions

#### *Assessment*

Approved concept analysis, active participation in the seminars, and an exam.

### **Theoretical foundation of nursing, 2 op KFG11B002 (study unit)**

#### *Lecturers*

Simo Ranta, MSc (Health Science)

#### *Objectives*

Students will be introduced to the more common theoretical foundations and concepts of health promotion and nursing. Upon completion of the course, students will be aware of the goals of the nursing relationship with patients and the theory associated with it to develop their personal skills in supporting patients and interacting with them. Students will also reflect deeply on the relationship of individuals with their environment from the point of view of health and

well-being, and have a deep understanding of the philosophical foundations of nursing and know how to apply them in geriatric care.

### *Content*

- Development of nursing as a historical process
- Philosophical, ethical and scientific foundations of nursing
- Concepts of human nature, concepts and principles
- Health culture and health promotion
- Pender's Health Promotion Model and Roper–Logan–Tierney's Nursing Model
- Professional qualifications, roles and identity in nursing
- Legislation pertaining to patients' status and rights
- Experiencing illness and adapting to illness
- Aims and cornerstones of a helping relationship, treatment scheme and documentation
- Therapeutic environment and care community
- Therapeutic communication

### *Literature / Study Material*

- Hopia H. & Koponen L. Hoitotyön kirjaaminen. Hoitotyön vuosikirja 2007
- Sarvimäki A. & Stenbock–Hult B. 1996. Hoito, huolenpito ja opetus (assigned parts)
- Sundeen S. et al. 1998. Nurse–Client Interaction. 6th ed. (chapters 5–7)
- Finnish Government. Act on the Status and Rights of Patients
- Vile M., Leppämäki P., and Ekström L. 2002. Vuorovaikutuksellinen tukeminen sosiaali- ja terveysalalla. WSOY. (assigned parts)
- Lecture material and other material distributed by the teacher

### *Learning Methods*

Lectures, group work, individual assignments, co-operative learning

### *Assessment*

- Active participation
- Approved assignments
- Examination

### *Prerequisites*

Analysis of Concepts in the Social Welfare and Health Care Field

## **Theoretical foundation of the work in the social field, 2 op KFG11B003 (study unit)**

### *Lecturers*

Katariina Perttula, MSSc

### *Objectives*

Upon completion of the course, students will understand the knowledge base in the field of social work and how it is derived from multiple disciplines and sources of knowledge. They will become aware of the relationship between the individual and society/community as a frame of reference in their work. Students will explore social work as a discipline, as professional practice and as a social movement. They will study the historical development of social work in Finland and see how it is related to the emergence of the welfare state. They will become aware of the role of interpretation in social problems and in the client/social worker relationship and comprehend the reflective nature of social work. They will be introduced to the ethical principles, values and conceptions of human nature in social work, and start constructing their personal value foundation for their future work. The students will learn to analyse and use concepts of social work and become aware of the foundation of the work.

### *Content*

- Concept of social work and its goals
- Methods of working and employees
- Ethical principles and issues
- Purposeful work processes
- Client-oriented work
- Theoretical models for social work: psychosocial, system theory, solution-based theories
- Expertise in social work

### *Literature / Study Material*



- Raunio K. 2004. Olennainen sosiaalityössä..
- Seppänen M. 2006. Gerontologinen sosiaalityö.
- Jaakkola J. et al. 1994. Armeliaisuus, yhteisöapu, sosiaaliturva. (pp. 261–339)
- Articles distributed by the lecturer

### *Learning Methods*

- Lectures
- Analyses of case studies in groups
- Drama
- Journal
- Exam

### *Assessment*

- Active participation in lessons
- Journal
- Approved exam

### *Prerequisites*

Analysis of Concepts in Social Welfare and Health Care

## **Integrating seminar: nursing and social field work, 2 op KFG11B004 (study unit)**

### *Lecturers*

- Katariina Perttula MSc
- Simo Ranta, MSc (Nursing)

### *Objectives*

Students will analyse and seek links between the central determinants and elements of nursing and work in the social field. Their seminar work will indicate they have begun to construct a foundation of values, theory and practice for elderly care.

### *Content*

Goals, client perspectives, methods of support, ethical principles, supporting relationships, employee roles and requirements of expertise in health care and social work

### *Literature / Study Material*

Material required for the courses Theoretical Foundations of Health Care and Theoretical Foundations of Social Work

### *Learning Methods*

Independent assignment, active participation in seminars

### *Assessment*

Successful completion of the independent assignment and active participation in seminars

### *Prerequisites*

- Theoretical Foundations of Health Care
- Theoretical Foundations of Social Work

## **Practical training 1: Well-being of the old individual and of the community in nursing home, 6 op KFG11BE005 (study unit)**

### *Lecturers*

- Anna-Kaarina Koivula, MSc
- Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will work in a small residential home for elderly people to gather and analyse information pertaining to the well-being of the individuals and the community and of the factors related to health and illness. During the course, students will become familiar with the expertise involved in caring for the elderly and with entrepreneurship. They will form an understanding of the qualifications and expertise needed in providing elderly-care services as an entrepreneur. They will also be participants in the promotion of health and well-being of the work community.

*Content*

- Supporting the well-being and ability to function of elderly people in small residential home
- Reflecting upon one's experiences in the residential home: relationship between the individual and community in the residential home and the experiences of people when interacting with others, the expertise needed in nursing homes
- Interviews
- Evaluation of one's learning in relation to the theory learned

*Learning Methods*

- Practical training in a residential home
- Community diagnosis assignment
- Active participation in seminars

*Assessment*

- Approved practical training in a residential home
- Assignment
- Active participation in seminars

## **Finnish society and social and health services, 13 op KFG11B2 (study entity)**

Objectives: Students will gain an overview of the historical development of the Finnish society and understand how the social and health problems of Finns are related to societal development and the activities of individuals and communities. They will acquire profound knowledge of the problems and challenges in the health-care and social welfare sector, health-care and social welfare policies and their information systems, aims and means, with special emphasis on legislation. The students will also gain insight into public, community and private social welfare and health-care delivery systems and of their aims and current challenges.

## **Finnish society and social policy, 3 op KFG11B006 (study unit)**

*Lecturers*

Kari Jokiranta, MSSc

*Objectives*

Students will be introduced to the historical development of the Finnish society and social policy and understand the links between social change and the everyday life of individuals. They will become familiar with the foundations of social welfare policies and their underlying values and models and actions for implementing them. Students will understand the role of social welfare policy as a warrantor of social security and well-being and as a part of societal decision-making. Students will have command of the more crucial principles associated with social welfare policies and their own rights, as well as of the administrative structure of social welfare.

*Content*

- Basic rights of citizens and public administration
- Phases in the development of the Finnish society
- Development of social welfare policy
- Concept of social welfare policy and its underlying values
- Models for implementing social welfare policy
- Social security in Finland
- Administration, guidance and financing of social welfare policy in Finland
- Principles in social welfare legislation

Research and development: 1 cr

*Literature / Study Material*

- Karisto A. & al. 1998: Matkalla nykyaikaan
- Lehto J. & al. 2006. Sosiaali- ja terveydenhuolto
- Tuori K. 2004. Sosiaalioikeus. WSLT. (assigned parts)

*Learning Methods*

Lectures, group discussions, independent assignment and exam

*Assessment*

- Active participation in lessons
- Approved independent assignment
- Exam
- Numerical grading 1–5

## **Morbidity and health policy in Finland, 3 op KFG11B007 (study unit)**

### *Lecturers*

Aila Vallejo Medina, MSc

### *Objectives*

Students will acquire basic knowledge of the health and illnesses of Finns, problems and challenges with health–care policies, and they will understand the prevention and rehabilitation activities needed for health problems in Finland. Students will be familiar with the methods for measuring and making statistics of the population's health/illness, and they will practise reading statistics and using various online documents associated with health and health–care policies. Students will have command of the central concepts associated with epidemiology. They will be aware of the main areas of strategy programmes, action programmes and procedures associated with health–care policies and know how to integrate them in their work with the elderly. Students will also be familiar with health–care policy legislation and the structure and functions of the health–care services system.

### *Content*

- Basic epidemiological concepts
- Measuring health and statistics in Finland, registers and publications
- Health problems related to health behaviour and lifestyle
- Hereditary diseases, new and old
- Illness in Finland in the light of various statistics
- Health–care problems related to the environment and community
- Global health–care problems
- Health–care policies: HFA–21, KASTE, and the government's health promotion policy
- Health–care legislation

Research and development: 1 cr

### *Literature / Study Material*

- Ministry of Social Affairs and Health. 2008. Sosiaali –ja terveydenhuollon kansallinen kehittämisohjelma
- Ministry of Social Affairs and Health. 2008. KASTE 2008–2011 programme
- Ministry of Social Affairs and Health. 2008. Government's health promotion policy
- New health–care act
- WHO: Health for All 21
- Online material pertaining to the measurement of health
- Other material distributed by the teacher

### *Learning Methods*

- Lectures
- Independent information acquisition about various issues in health, illness, statistics on health–care services
- Pair work
- Group work

### *Assessment*

- Active participation
- Pair work
- Examination
- Numerical grading 1–5

## **Aging and society and elderly people's social problem situations, 3 op KFG11B008 (study unit)**

### *Lecturers*

Anna–Kaarina Koivula, MSSc

### *Objectives*

Students will learn to analyse demographic, historical, cultural, economic and public health factors, which affect the position and welfare of elderly citizens. They will become aware of the historical development and the various sectors of

elderly policy in Finland. Students will also learn to detect and analyse social problems and understand their interpretative nature. They will learn to analyse and critically discuss the conceptions disseminated by the media, and learn to seek information independently. They will also learn to identify and analyse historical, cultural and social factors, which lead to the social exclusion of elderly people. Students will be introduced to central elderly policies and programmes and learn to analyse the objectives of elderly policy from the perspectives of increased welfare, prevention of social exclusion and identification and promotion of the clients' resources. Students will be competent in critically examining the conceptions mediated by the media concerning the social problems of elderly people and in independently acquiring related information.

### *Content*

- Status of elderly people in society and the determining factors
- Concept of elderly care policy in Finland and internationally + sub-areas
- Global, national and local elderly care policies and programmes
- Social problems of the elderly from the point of view of the individual, community and society
- Role of councils in elderly policy
- Role of media in defining social problems of the elderly

### *Literature / Study Material*

- Suomi A. & Hakonen S. (eds.). 2008. Kuluerästä voimavaraksi
- Seppänen M., Karisto A. & Kröger T. 2007. Vanhuus ja sosiaalityö
- Kankare H. & Lintula H. (eds.). 2005. Vanhuksen äänen kuuleminen
- Helander V. 2004. Seniorikansalainen voimavarana: havaintoja ja pohdintoja ikäpolitiikan suuntaamiseksi.
- Current programmes for strategies and procedures in elderly care
- Articles and other material distributed by the teacher

### *Learning Methods*

Lectures, group work, independent assignment, examination

### *Assessment*

- Active participation in lessons
- Group assignment
- Independent assignment
- Examination
- Numerical grade

## **Laws and decrees regulating elderly policy, 2 op KFG11B039 (study unit)**

### *Lecturers*

Anna-Kaarina Koivula, MSSc

### *Objectives*

Upon completion of the course, students will have command of the central contents of elderly policy legislation and understand how it affects the promotion of the welfare of elderly people. Students will become familiar with social welfare legislation, the underlying principles and their practical significance. They will learn to apply legislation in case studies and to solve common problems in applying legislation. Students will also gain insight into the nature of elderly care built on the foundation of legislation and of the qualifications required from them.

### *Content*

- Central elderly-care policies: goals and programmes
- Municipal services for the elderly
- Service fees
- Private social services
- Pensions
- Services for the disabled
- Legislation on guardianship
- Inheritance
- Intoxicant abuse work + legislation

### *Literature / Study Material*

- Mäki-Petäjä-Leinonen A. 2003. Dementoituvan henkilön oikeudellinen asema.
- Narikka J. 2005: Sosiaali- ja terveyspalvelujen lainsäädäntö käytännössä.
- Central elderly-care policies: missions and quality-control programmes

### *Learning Methods*

Lectures, online learning

### *Assessment*

Active participation in the online work and approved written assignments

## **Practical training 2: The social and health service delivery system, 2 op KFG11BE008 (study unit)**

### *Lecturers*

- Anna–Kaarina Koivula, MSc
- Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will familiarise themselves with the social welfare and health care system of one municipality. Upon completion of the training, students will have command of the various ways municipal social welfare and health care services are organised. They will be aware of the current challenges in the field and know how to compare various service solutions from various points of view.

### *Content*

- Municipal residents and the structure of livelihood as the basis for carrying out social and health–care services
- Service needs of municipal residents
- Goals and strategies in the social welfare and health–care sector, strategy documents and their relationship with goals on the national level
- Structure and services of the social welfare and health care service system
- Structure of the staff in the social welfare and health care sector
- Needs for development of activities

Research and development: 2 op

### *Literature / Study Material*

Information gathered by the students, which pertains to the goals and various organisational models in the social welfare and health care service system.

### *Learning Methods*

A report, completed either independently or in pairs, and seminar pertaining to the social welfare and health–care service system.

### *Assessment*

- Approved report
- Active participation in the seminar
- Numerical grading

### *Prerequisites*

- Finnish Society and Social Welfare Policy
- Illness in Finland and Health Care Policy

## **Gerontological studies, 17 op KFG11B3 (study entity)**

Objectives: Students will understand gerontology as a multi–disciplinary field, which utilises various perspectives and approaches, and become familiar with the diverse amount of knowledge produced by these perspectives and approaches concerning the elderly and becoming old. Studies in gerontology provide a basis for theories of aging, understanding old age, changes in the ability to function, and as a societal phenomenon.

## **Gerontological theories, 2 op KFG11B009 (study unit)**

### *Lecturers*

Sirkka–Liisa Palomäki, PhD

### *Objectives*

Students will learn to see how multiple viewpoints and research methods are applied in gerontology. They will be introduced to various sectors of gerontology and to the knowledge and research methods produced by these sectors.

Students will also examine theories of ageing and analyse their significance from the viewpoint of the elderly, the community, the elderly care professionals and society. Upon completion of the course, students will have command of the central concepts related to gerontological theories and models. They will have knowledge of the approaches to gerontological research, understand aging as multidimensional process of adaptation and development, and analyse aging on the level of the individual, community, culture and society by way of various theories. Students will also be familiar with the essential issues and challenges in gerontology on the academic level.

### *Content*

- Theories and models of gerontology and aging
- Research perspectives and challenges in gerontology
- Physical, psychological and social aging
- Aging as a phase in life and development, adaptation
- Cultural and societal aspects of aging

Research and development: 2 cr

### *Literature / Study Material*

- Heikkinen E. & Rantanen T. (eds.). 2007 Gerontologia (applicable parts).
- Kuusinen J. & Paloniemi S. 2002. Kasvatusgerontologian teoriaa ja käytäntöä, In Heikkinen E. & Marin M. Vanhuuden voimavarat
- Articles from Gerontologia magazine

### *Learning Methods*

Lectures and co-operative learning

### *Assessment*

Active participation, examination

## **Changes brought on by aging and elderly people's functional capacity, 3 op KFG11B0101 (study unit)**

### *Lecturers*

- Aila Vallejo Medina, MSc
- Pia Haapala, MSc

### *Objectives*

Students will be familiar with the anatomic, biological, psychological and social processes involved in aging. They will acquire basic knowledge of how to measure an elderly person's ability to function and how to define the holistic well-being of an elderly person. They will also be competent in promoting the health, well-being and ability to function of elderly people.

### *Content*

- Changes brought on by ageing: functional and anatomical
- Multi-dimensional nature and assessment of functional capacity: metres and how to use them
- Individual ageing
- Environmental and societal factors that promote and prohibit functional capacity
- Promotion of self-esteem, life management, welfare, health and functional capacity
- Demonstrations and exercises for measuring an elderly person's ability to function

Research and development: 1 cr

### *Literature / Study Material*

- Heikkinen E. and Rantanen T. (eds.). Gerontologia. Duodecim. (assigned parts)
- Leinonen R. and Havas E. (eds.). 2009. Liikunnan ja kansanterveyden julkaisuja 212
- Voutilainen P. 2008. Toimintakyvyn ja voimavarojen arviointi. In Voutilainen P. & Tiikkainen P. (eds.). 2008. Gerontologinen hoitotyö.
- WHO. 2004. ICF– Toimintakyvyn, toimintarajoitteiden ja terveyden kansainvälinen luokitus (assigned parts)
- Lecture material
- Current reports
- Articles

### *Learning Methods*

Lectures, demonstrations, independent/pair assignments, independent study

*Assessment*

- Active participation in lessons
- Approved assignments and examination
- Examination
- Numerical grading 1–5

*Prerequisites*

- Anatomy
- Physiology
- Micro–biology

## Experienced old age, 3 op KFG11B011 (study unit)

*Lecturers*

Aila Vallejo Medina, MSc (Health Science)

*Objectives*

Through the study of research and fiction, students will become familiar with the types of experiences elderly people living in different circumstances have. They will understand the significance of this literature to the development of their professional expertise and empathy. Student will consider elderly people as individuals and take their individual needs into consideration when obtaining services for them.

*Content*

- The experience of aging and old age in research and fiction
- Theory of gerotranscendence in understanding the experience of old age
- Lifespan and reminiscing about it
- Experiencing old age in different environments, in the country and in the city
- Relationship of the elderly with the material world
- Roles of an elderly person, hobbies, generation–specific experiences
- Experiences of the elderly pertaining to the home, services and institutional care

Research and development: 2 cr

*Literature / Study Material*

- Andersson S. 2007. Kahdestaan kotona– Tutkimus vanhoista pariskunnista. Stakes
- Heimonen S. & Syren I. (eds.) 2008. Kokemus ja kokemuksellisuus ikääntyessä. Ikäinstituutti. Oraita 1/2008
- Hervonen A. 2001. Vuosisadan vartijat, Ikääntymisen maailmanmestarit kertovat. Tammi. (pp. 97–136)
- Tornstam L. 2005. Gerotranscendence– Developmental Theory of Positive Aging. Springer Publishing Company (chapters 3, 5, and 6)
- Vaininen M. et al. 1999. Rakkaat ja tarpeelliset tavarat
- Studies and articles about the experiences of aging
- Articles from the Gerontologia magazine
- Various sources of fiction
- Video programmes

*Learning Methods*

Lectures, discussions, group work and literary analysis

*Assessment*

- Active participation in lectures and groupwork
- Independent assignment: literary analysis based on the theoretical studies of experiential aging + seminar
- Examination

## Practical training 3: Analysis of the functional capacity and living conditions of home–living, 2 op KFG11B013 (study unit)

*Lecturers*

- Elina Hietaniemi, MSc
- Aila Vallejo Medina, MSc

*Objectives*

The students will learn to observe, analyse and define the welfare, functional capacity, health, life management and living conditions of elderly people. They will interview and observe clients in their own environments, explore individual experiences of old age and analyse the related factors. The students will increase their skills in interviewing and interacting with elderly people, as well as their ability to apply their knowledge in their profession. They will acquire experience in guiding elderly people, promoting health and evaluating the service needs of elderly people.

*Content*

- Interviews with elderly people living at home
- Observation, assessment and testing of the functional capacity of elderly people (balance, mood, and cognition)
- Assessment of the living conditions and environments of elderly people and the impact on their functional capacity
- Personal experiences of old age
- Supporting the welfare of elderly people (exercise, nutrition and information about services available)

Research and development: 2 cr

*Learning Methods*

- Introductory lectures
- Visits with elderly people based on relaxing–visiting and outreach ideologies
- Interviews concerning the welfare, health and living conditions of various elderly people (75–80 yrs. of age)
- Testing functional capacity
- Exercises and nutrition consultation
- Assignment concerning the reflection of one's learning experiences
- Reflection on one's learning experiences

*Assessment*

- Participation in the introductory lectures
- Approved practical training and evaluation report of it
- Reflection
- Participation in the feedback seminar
- Numerical grades 1–5

## **Practical training 4: Promotion of elderly people's functional capacity in sheltered housing, 7 op KFG11BE014 (study unit)**

*Lecturers*

- Elina Hietaniemi, MSc
- Aila Vallejo Medina, MSc

*Objectives*

Students will learn to promote the health, well-being and functional capacity of elderly people in assisted living homes and nursing homes. They will practise ways to help elderly people utilise their memory skills and use music therapy and other creative methods with individual elderly people and groups. Students will apply basic gerontological knowledge to assess and promote the functional capacity of the aging. They will learn to supervise group activities and to apply various methods to promote the clients' well-being (e.g. reminiscence, physical exercise, music, arts and crafts, literature, painting with the TTAP method). They will also reflect on their personal development and challenges for development.

*Content*

- Assisted living and nursing homes as a part of society's service system for the elderly
- Individual ageing as a subjective experience, life circle, needs for services and how to meet them
- Experiences of elderly people concerning their life circle in a nursing home
- Participation in the service processes of an assisted living or nursing home
- Supervision of activities for elderly people

Research and development: 2 cr

*Learning Methods*

- Practical training and assignments associated with it
- Supervising creative activities
- Supervision of individuals and groups of elderly people



*Assessment*

- Approved practical training and assignments
- Supervision of groups
- Numerical grading

*Prerequisites*

Successfully completed courses between KGF11A3 and KFG11B012

## **Elderly research, 10 op KFG11B4 (study entity)**

Objectives: Students will explore the concept of scientific thinking in elderly care. They will understand the significance of practical knowledge in development based on research. Students will be competent in carrying out research and development processes, in choosing appropriate research methods and in understanding ethical issues in research. They will also be competent in reporting about their study and apply their findings to elderly care. Students will have command of the analysis, evaluation and utilisation of scientific information in elderly care.

## **Introduction to scientific thinking, 2 op KFG11B005 (study unit)**

*Lecturers*

Kari Jokiranta, MSSc

*Objectives*

Students will be aware of the philosophical foundations of scientific knowledge and its areas of application. They will be competent in structuring their own view of the world and their activities.

*Content*

- Concepts and fundamental issues in philosophical thinking
- Philosophical foundations of the concept of the human being
- Knowledge and understanding
- Activity, values, and ethical reflection in one's activities
- Justice

Research and development: 2 cr

*Literature / Study Material*

- Airaksinen T. 1994. Johdatus filosofiaan.
- Sajama S. 1995. Arkipäivän filosofiaa.

*Learning Methods*

Lectures, discussions and group work

*Assessment*

Active participation in lectures, exam

## **Quantitative research methods, 2 op KFG11B016 (study unit)**

*Lecturers*

Hilkka Latva–Somppi, MA

*Objectives*

Students will understand the foundations and processes of quantitative research, be familiar with the more common research methods and their areas of application, and have command of the SPSS statistics programme for analysing their research data. Upon completion of the course, students will be able to select appropriate research methods for a given study and apply various methods in their own thesis work and other research work they may do. They will understand how to illustrate and interpret data using charts, parameters and graphics in the SPSS programme.

*Content*

- Central features and concepts of quantitative research
- Planning what tools to use to gather data
- Measuring variables
- Sampling

- Presentation and analysis of research data with the SPSS statistics programme (frequency charts, correlations, parameters and graphic presentations)

Research and development: 2 cr

#### *Literature / Study Material*

- Ernvall–Ernvall–Kaukkila. 2002. Tilastollisia menetelmiä sosiaali- ja terveysalalle.
- Heikkilä T. 2002. Tilastollinen tutkimus.
- Online material

#### *Learning Methods*

Lectures, online learning and assignments

#### *Assessment*

- Active participation in lectures
- Independent assignments
- Numerical grading: 1–5

## **Qualitative research methods, 2 op KFG11B015 (study unit)**

#### *Lecturers*

Sirkka–Liisa Palomäki, PhD

#### *Objectives*

Students will learn about the characteristics and significance of qualitative research. They will be competent in utilising methodology and considering issues of ethics when carrying out qualitative research. Upon completion of the course, students will understand the foundations of qualitative research, have command of the processes involved in qualitative research, and be competent in evaluating and selecting appropriate material to carry out a study and in utilising basic qualitative research methods. They will understand the ethical issues involved in doing research with the elderly, and be able to evaluate and apply their acquired knowledge in their work with the elderly.

#### *Content*

- Foundations of qualitative research
- Processes involved in qualitative research
- Common research methods
- Various ways to gather data and analyse it
- Reporting results
- Ethical research and reliability
- Application and evaluation of qualitative research in elderly care

Students participate in on–going elderly–care projects in which they gather qualitative data to use in the projects.  
Research and development: 2 cr

#### *Literature / Study Material*

Vilkka, H. 2005. Tutki ja kehitä.

#### *Learning Methods*

- Lectures
- Assignments
- Participation in the gathering of qualitative data for the project(s)

#### *Assessment*

- Active participation in lectures
- Exam
- Completion of assignments
- Numerical grading 1–5

## **Action research, 2 op KFG11B017 (study unit)**

#### *Lecturers*

Sirkka–Liisa Palomäki, PhD

*Objectives*

Students will learn what action research involves in approaching the phenomenon to be studied/developed. They will be able to apply action research in their final theses or development projects. Students will understand the potential in bridging theory and practice in the development of elderly care and work communities; they will learn to define research problems, to engage themselves in an interactive research and development process, to analyze the results and to report on the research process and development proposals.

*Content*

- Idea behind action research
- Defining problems associated with development/development task
- Process of action research
- Various structures, methods and data of action research
- Conclusions, evaluation, reporting
- Action research in work with the elderly and in developing work communities

Research and development: 2 cr

*Literature / Study Material*

- Heikkinen H., Rovio E. & Syrjälä L. 2006. Toiminnasta tietoon. Toimintatutkimuksen menetelmät ja lähestymistavat.
- Heikkilä A., Jokinen P. & Nurmela T. 2008. Tutkiva kehittäminen: avaimia tutkimus –ja kehittämishankkeisiin terveysalalla. WSOY.

*Learning Methods*

Lectures, exercises and independent assignment

*Assessment*

- Active participation in lessons
- Independent assignment
- Numerical grading 1–5

## **Analysis and summary of elderly research, 2 op KFG11B018 (study unit)**

*Lecturers*

Principle lecturer Sirkka–Liisa Palomäki, PhD

*Objectives*

Students will study various scientific methods for producing knowledge of old age, aging and elderly care. They will analyse the methods used and evaluate their usefulness in elderly care. Students will understand the importance of research pertaining to the elderly, to identify and analyse the various foundations, methods and processes in research, to report on the essential research contents and to reflect on the application of the knowledge.

*Content*

- Producing utilising and developing research in elderly care
- Reporting about research analyses and summaries
- Various issues concerning the production of information
- Various research methods and processes
- Familiarisation with the latest research in elderly care

Research and development: 2 cr

*Literature / Study Material*

Various types of research pertaining to elderly care

*Learning Methods*

Independent study and seminar

*Assessment*

- Written assignment pertaining to the analysis of the research process
- Active participation in seminar work
- Numerical grading 1–5

## **Analysis of the profession and professional growth, 4 op KFG11B5 (study entity)**

**Objectives:** Students will gain awareness of the history of gerontology and the factors that have influenced its development. They will become familiar with the theory of analysing professions in the field of health care and social welfare, and acquire readiness in specifying the activities in gerontology according to the goals, professional qualifications, and development of the profession. Students will also be aware of the various types of qualifications needed in gerontology and consider the phase of development they are in as regards their expertise in working with the elderly. They will become familiar with the various other professions involved in multi-professional elderly care.

## **Job description and professional qualifications of Bachelors of Elderly Care, 2 op KFG11B019 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Care Science)

### *Objectives*

Students will learn to apply the concepts and theories studied during the course analysis of the profession and become aware of their future job description and personal development challenges. They will explore the duties and professional qualifications of bachelors of elderly care.

### *Content*

- Central concepts in analysing various professions
- Elements and models of describing professions in the field of social welfare and health care
- Dimensions of expertise
- Process of becoming an expert
- Qualifications concerning professions in the field of social welfare and health care
- Professional qualifications of bachelors of elderly care and their areas of expertise in society

Research and development: 1 cr

### *Literature / Study Material*

- Ruohotie. P. 2004. Ammatillinen asiantuntijuus
- Lecture material (autumn 2004). Seinäjoki University of Applied Sciences
- Salonen K. 2002. Vanhussosiaalityö ammattina (appendices)
- Ministry of Education. Ammattikorkeakoulusta terveydenhuoltoon
- Isoherranen K. 2005. Moniammatillinen yhteistyö
- Molander. G. 2003. Työtunteet– esimerkkinä vanhustyö (assigned parts)
- Vanhustyön koulutusohjelman kompetenssikuvaukset 2009
- Other material distributed by the lecturer

### *Learning Methods*

- Lectures
- Discussions
- Analyses of the job descriptions of a person working in elderly care
- Seminar

### *Assessment*

- Active participation in lectures and seminars
- Approved analysis assignment
- Numerical grades 1–5

## **Analysis of the student's personal professional qualifications, 2 op KFG11B021 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will analyse current and future challenges in elderly care, their future job description, qualifications, personal growth and development challenges. They will become aware of their own strengths and potential for employment.

### *Content*

- Introductory lecture
- Reflection on current and future challenges in elderly care
- Qualifications in relation to the demands set by the field of gerontology
- Latest analyses in elderly care
- Analysis of the profession (seminar)

Research and development: 2 cr

#### *Literature / Study Material*

- Ylinen, S. 2008. Gerontologinen sosiaalityö. Teorianmuodostus ja asiantuntijuus. Kuopion yliopisto
- Salonen K. 2002. Vanhussosiaalityö ammattina. (appendices)
- Voutilainen P. & Tiikkainen P. (eds.) 2008. Gerontologinen hoitotyö
- Seinäjoki UNiversity of Applied Sciences Study Guide for Elderly Care (latest)
- Competence descriptors for the Degree Programme in Elderly Care

#### *Learning Methods*

Independent assignment: analysis of the profession, seminar

#### *Assessment*

Independent assignment: analysis of the profession, active participation in seminar

### **Ethics in elderly care, 4 op KFG11B6 (study entity)**

Objectives: Students will be aware of the ethical challenges involved in elderly care. They will reflect on these challenges and be competent in finding solutions through theories on ethics and various other perspectives. Students will also consider their own ethical issues, on both the professional and personal levels, and write an academic essay related to the topic.

### **Ethics of elderly care and of Bachelors of Elderly Care, 2 op KFG11B022 (study unit)**

#### *Lecturers*

Sirkka-Liisa Palomäki, PhD

#### *Objectives*

Students will be familiar with the ethical nature of elderly care, be conscious of ethical problems and analyse them together with others, in a professional, diverse way. They will be aware of their responsibilities in the promotion of elderly care and the work community, as well as reflect on their own values. Upon completion of the course, students will understand their ethical responsibility in promoting the rights of elderly people, in analysing ethical problems and finding solutions for them by utilising various theories on ethics, the norms of professional ethics, and various other perspectives.

#### *Content*

- Concepts of old age and values as a basis for reflection
- Concepts, theories and morality pertaining to ethics in elderly care
- Legislation, guidelines and principles in professional ethics
- Morality of the work community
- One's own ethical sensitivity and taking responsibility
- Moral conflicts in elderly care and reflecting upon them

#### *Literature / Study Material*

- Juujärvi S et al. 2007. Eettinen herkkyyss ammatillisessa toiminassa
- Pietarinen J. 1994. Oikeus itsemääräämiseen. (assigned parts)
- Articles from Seppänen M., Karisto A. & Kröger T. 2007. Vanhuus ja sosiaalityö
- Gerontologia 3/2007. Ikäetiikan teemanumero
- Other current articles

#### *Learning Methods*

Lectures and case studies as a basis for ethical reflection and discussion

#### *Assessment*

Active participation in lessons, examination

## Essay and seminar, 2 op KFG11B023 (study unit)

### *Lecturers*

Sirkka-Liisa Palomäki, PhD

### *Objectives*

The students will select a topic and deepen their ethical awareness and reflection by studying relevant literature and writing an essay on a chosen topic pertaining to gerontology. They will practice defining topics, writing academic texts based on literary sources and their own reflection. They will have command of the academic style of essay writing and citation, reflective writing and application of literature. They will exhibit a unique, creative and investigative approach to their writing and act as opponents to their peers.

### *Content*

- In-depth reasoning of ethical issues concerning gerontology
- Academic writing
- Acting as an opponent

### *Literature / Study Material*

- Material for course KFGB11022
- Guidelines for Writing a Thesis at <http://intra.seamk.fi/opiskelijat/opinnaytetyo.htm>

### *Learning Methods*

Academic essay and seminars

### *Assessment*

- Academic essay
- Active participation in seminars
- Acting as an opponent

## Teaching and counselling, 2 op KFG11B024 (study unit)

### *Lecturers*

Elina Hietaniemi, MSc

### *Objectives*

Students will become familiar with the theory of constructive learning. They will possess readiness in guiding and teaching fellow employees as part of the learning and development experience in work and in a work community. Upon completion of the course, students will understand the significance of learning at work as a part of one's development. They will also be familiar with the methods of teaching and guiding adults.

### *Content*

- Theory of constructive learning
- Learning and developing at work and in a work community
- Co-operative and creative methods in adult learning
- Lifelong/continuous learning and development

Research and development: 1 cr

### *Literature / Study Material*

- Repo-Kaarento S. 2007. Innostu ryhmästä. Miten ohjata oppivaa yhteisöä
- Kokemuksellinen oppiminen. Online publication
- Ojanen S. 2003. Ohjauksesta oivallukseen-ohjausteorian kehittelyä. In Sikelä, R.(ed.). Tutkimuksia harjoittelun ohjauksesta. Online publication

### *Learning Methods*

- Lectures
- Assignments
- Practical guidance and planning teaching and teaching
- Self-evaluation
- Feedback from the work community

*Assessment*

- Co-operative learning
- Report concerning teaching and guidance
- Group exam

## **Supervision of reminiscence, 2 op KFG11B025 (study unit)**

*Lecturers*

Aila Vallejo Medina, lehtori, MSc (Health sciences)

*Objectives*

The students will be introduced to the theoretical background and practical applications of guided remembering and become motivated to use it in their work to support and help elderly people. Upon completion of the course, students will identify various approaches to using methods and understand the significance of them. They will have command of various ways to trigger memory and to guide the process. They will know how to guide elderly people in empowered remembering, and in so doing consider the special demands illnesses present in the process.

*Content*

- Concept of memory and the history of its use and various approaches in work with the elderly
- Constructive and therapeutic nature of memories
- Remembering as a creative activity
- Roles of the counselor
- Activating, supporting and promoting the memory of an elderly person/group
- Methods for triggering reminiscence
- Methods to trigger remembering
- Demands set by various ways to remember things (people with dementia, depressed elderly people)
- Environments that support and trigger remembering
- Relationship of memory to creative activity

*Literature / Study Material*

- Bonart J.(ed). 1991. Reminiscence Reviewed. Open University Press. Buckingham.
- Gibson F. 2006. Reminiscence and Recall: A Guide to Good Practice. AGE books. (assigned parts)
- Hohenthal–Antin L. 2009. Muistot näkyviksi. Muistelutyön menetelmiä ja merkityksiä. Ps–kustannus.
- Reinikainen P. 2007. Elämäntapa- ja ihmisen vuoden ajat.(assigned parts)
- Current articles and material for triggering memory

*Learning Methods*

- Lectures
- Assignments
- Memory assignment completed during practical training KFG11BE014

*Assessment*

- Active participation in the lectures and assignments
- Report
- Participation in the seminar

## **Music therapy and creative therapies in elderly care, 3 op KFG11B026 (study unit)**

*Lecturers*

- Tiina Kohtamäki, BA
- Specialist in music therapy

*Objectives*

The students will be introduced to music therapy, how to utilise it and the principles behind it. They will be familiar with music as a tool and, in their work, they will experience how music can be used to support the health and well-being of elderly people. Students will reflect upon the possibilities of music therapy in work with the elderly through their own experiences with music therapy in the course. They will strengthen their self-expression and artistic abilities and apply it to work with the elderly. Students will learn various types of creative handicrafts to use with the elderly, family care-givers and staff, and understand the significance of artistic resources in bettering interaction with others and the quality of life. Students will be introduced to various materials and how they can be creatively used. They will

understand the power creativity has in elderly care and be motivated to use their knowledge and skills in work with elderly people. Students will learn about the TTAP method developed by Linda Levine Madot.

### *Content*

- Foundations and principles of music therapy
- Familiarisation with various methods based on music therapy
- Applying music therapy to work with the elderly
- The music geriatric care professional and supporting creativity
- Self-expression and finding one's own creativity to use as a tool in elderly care

### *Assignments:*

- Experiments with techniques
- Familiarisation with various materials and how to make them
- TTAP method

### *Literature / Study Material*

- Andrejev T. & Salomaa V. 2005. Kokemista ja kuvitusta– luovat toiminnalliset menetelmät vanhustyössä. In Noppari E. & Koistinen P. (eds.). 2005. Laatua vanhustyöhön.
- Bojner–Horowitz E. & Bojner G. 2007. Mielihyvää musiikista.(assigned parts)
- Levine Madori L. 2006. Therapeutic Thematic Programming for Older Adults. (assigned parts)
- Rankanen M., Hentinen M., Mantere M–H. 2007. Taideterapian perusteet. Duodecim. (assigned parts).

### *Learning Methods*

- Independent study
- Experiential learning and co-operative learning
- Analysis of experiences and assignments in groups

### *Assessment*

- Active participation in lectures and assignments
- Independent study
- Exam on the above-mentioned literature

## **Practical training 5: Creative activities in elderly care, 2 op KFG11BE027 (study unit)**

### *Lecturers*

- Elina Hietaniemi, MSc (Health Science)
- Aila Vallejo Medina, MSc (Nursing)

### *Objectives*

Students will apply the knowledge and skills learnt during the courses on teaching and counselling and creative therapies to arrange activities for elderly people, family members and elderly care workers.

### *Content*

The students will apply the TTAP method developed by Levine Madori. The contents and implementation of this practical training period partly depend on the needs and interests of the elderly groups and student(s).

### *Literature / Study Material*

Material from courses KGF11B024, KGF11B026, KFG11B25, as well as other relevant material.

### *Learning Methods*

- Planning, implementation and evaluation of group activities
- Report on practical training

### *Assessment*

- Report on practical training
- Feedback from clients
- Clinical supervisor feedback
- Self-evaluation



### *Prerequisites*

Participation in the theoretical studies mentioned above.

## **Supporting elderly people's functional capacity, 10 op KFG11B8 (study entity)**

Objectives: Students will learn to support elderly clients' functional capacity, to meet the basic needs of healthy and ill clients, to promote their health and welfare and to pay special attention to their nutrition.

## **Meeting the basic needs and supporting the daily activities of the elderly, 3 op KFG11B028 (study unit)**

### *Lecturers*

- Kristiina Vaahtera, MSc
- Elina Hietaniemi, MSc

### *Objectives*

Students will learn to assess the basic needs and functional capacity of healthy and ill elderly clients in various situations and environments and to apply methods of nursing to meet the clients' basic needs. Students will gain the knowledge and skills required in the promotion of elderly clients' coping with activities of daily living.

### *Content*

- Identifying and meeting elderly clients' basic needs
- Maintenance of functional capacity
- Central care and nursing methods and asepsis

Research and development: 1 cr

### *Literature / Study Material*

- Kassara H. et al. 2004. Hoitotyön osaaminen. WSOY
- Iivanainen A. & Syväoja P. 2008. Hoida ja kirjaa – rakenteinen kirjaaminen (assigned parts)
- Kivelä S–L. 2007. Voimavaroja unesta
- Vallejo Medina A. et al. 2005. Vanhusten hoito. (pp. 63–78 and 127–147)
- Hallila. L. (toim.) 2005. Näyttöön perustuva hoitotyön kirjaaminen. Infektioiden torjunta sairaalassa. Latest edition. (assigned parts)
- Lecture material and other material announced by the teacher

### *Learning Methods*

Collaborative learning, laboratory work, independent assignment

### *Assessment*

- Written examination
- Treatment scheme completed during practical training
- Assignment concerning the care of a wound

## **Elderly people's nutrition and special diets, 2 op KFG11B029 (study unit)**

### *Lecturers*

Pirkko Tuominen, MSc

### *Objectives*

Students will acquire basic knowledge of the nutrition of elderly people and have command of planning and implementing the diets needed to care for the more common illnesses elderly people may have. Students will understand the significance of nutrition in preventing and treating illness in elderly people and be able to evaluate the nutritional and eating disorders in the various living environments and illnesses elderly people may have. Students will become familiar with the evaluation of the nutritional status and undernourishment of elderly people, and the results of that evaluation, and be able to take the necessary steps to rectify the situation.

### *Content*

- Eating habits and nutritional needs of elderly people from the physical, psychological, social and ethical point of view

- Evaluating the nutritional status of elderly people and determining whether or not an elderly person is undernourished
- Nutrition as a part of rehabilitative care, collaboration with various staff groups
- Meal services for the elderly in outpatient care and those in institutions
- Common special diets and current issues in nutrition for the elderly

#### *Literature / Study Material*

- Louheranta A. (ed.). 2006. Ravitsemus ja ruokavaliot.
- Association of Clinical and Public Health Nutritionists in Finland. Ikääntyneen ravitsemus ja erityisruokavaliot.
- Guidebook for nursing staff of elderly people
- Other material distributed by the teacher

#### *Learning Methods*

Lectures, discussions, field trip

#### *Assessment*

Active participation in lessons, assignment or examination

### **Practical training 6: Supporting elderly people's functional capacity at home, 5 op KFG11B030 (study unit)**

#### *Lecturers*

Anna–Kaarina Koivula, MSSc

#### *Objectives*

Students will study multi–professional home–care and the planning, provision and supervision of home services by supporting the daily lives, welfare and functional capacity of the elderly people involved and by learning to supervise home–help personnel.

#### *Content*

Students will participate in the planning, implementation and evaluation of home services for elderly people. They will be involved in the creation, evaluation and updating of care and service schemes.

#### *Literature / Study Material*

- Heinola R. (ed.). 2007. Asiakaslähtöinen kotihoito.
- Material for the theoretical courses

#### *Learning Methods*

- Participation in the provision of home services
- Journal
- Learning contract
- Self–evaluation

#### *Assessment*

- Approved practical training
- Journal
- Assignment
- Numerical grading

### **Nursing sick elderly people, 21 op KFG11B9 (study entity)**

Objectives: Students will gain basic qualifications in the prevention of illness, in the planning and implementation of elderly patients' care and nursing and in medical care. They will practice in primary health–care settings and learn to plan, implement and evaluate the services provided for elderly citizens. The students will analyse theoretical nursing models and their applicability in the care and service provision. The students will learn to integrate practical skills with knowledge derived from multiple sources to provide high standard total care, rehabilitation and case management.

### **Geriatrics, 2 op KFG11B031 (study unit)**

#### *Lecturers*

- Maria Nuotio, PhD, geriatric specialist

- Heli Ridanpää, BSc (Elderly Care)

### *Objectives*

Students will study the reasons, background, progress, prevention, treatment and rehabilitation of various diseases and learn to apply their knowledge when planning the comprehensive care of elderly people and when selecting suitable care institutions and counselling the patients' families and voluntary care-givers.

### *Content*

- Principles of medical care for the elderly: illness and symptoms
- Falling and problems with balance
- Pain and pain control
- Acute confusion
- Cardiovascular, pulmonary, gastrointestinal, kidney and urinary diseases
- Osteoporosis, musculoskeletal diseases
- Sensory and neurological disorders
- Mental health problems: depression and paranoia
- Problems with memory and dementing illnesses and medical care of them
- CERAD testing

Studies in geriatrics are divided into two equally extensive parts: general geriatrics and dementing illnesses and how to take care of them.

### *Literature / Study Material*

- Hartikainen S. & Lönnroos, E. 2008. (eds.). Geriatria–arvioinnista kuntoutukseen. Edita.
- Other material distributed by the lecturer(s)

### *Learning Methods*

Lectures, independent study

### *Assessment*

- Active participation
- Examination
- Numerical grades: 1–5

### *Prerequisites*

- Basics of Medicine
- Internal Medicine
- Surgery

## **Drug care of elderly people and clinical pharmacology, 3 op KFG11B032 (study unit)**

### *Lecturers*

- Leena Ulvinen, Chemist
- Kriistiina Vaahtera, MSc (Health Science)

### *Objectives*

Students will become aware of their responsibilities in handling drugs, administering medicines and providing drug guidance. Upon completion of the course, students will understand the basic mechanisms of how drugs work, and they will be familiar with the medical treatment of illnesses of the elderly. Students will also be aware of the special problems in administering drugs to elderly people and of the possible side-effects drugs may have. They will know how to handle drugs correctly and safely through the command of the terminology and mathematical calculations associated with drug administration. Students will also be competent in guiding clients and their family care-givers.

### *Content*

- Basic concepts in pharmacology
- The elderly and drugs
- Absorption, distribution, secretion, accumulation, cross-over effects and side effects
- Basic principles in drug treatment
- Areas of development in elderly medical care
- Drug substance groups and drug treatment for various illnesses of the elderly
- Types of drugs, handling and administering drugs

- Drug mechanisms and interaction
- Calculating dosage
- Special issues in the drug treatment and counselling of elderly people, areas of responsibility in drug treatment
- Unit-specific drug treatment schemes
- Legislation pertaining to drug maintenance and treatment
- Supervision of students' drug treatment expertise and indication of this expertise with the personal drug treatment card

Research and development: 1 cr

#### *Literature / Study Material*

- Veräjänkorva O. et al. 2006. Lääkehoito hoitotyössä
- Kivelä, S-L. & Räihä, I. 2007. Iäkkäiden lääkehoito. Lääkelaitos. Kapseli 35
- Laine K. 2005. Lääkkeiden yhteisvaikutukset. (assigned parts)
- Kivelä S-L. 2003. Vanhuksen lääkehoito. (assigned parts)
- Lääkelaki 395/1987
- Lääkeasetus, sections 18 and 29
- Lääkintöhallituksen yleiskirje 1929/1987
- Ministry of Social Affairs and Health. 2007. Turvallinen lääkehoito
- Infektioiden torjunta sairaalassa. Latest edition. (assigned parts).
- Geronomien Lääkehoitopassi. 2007.
- Other lecture material

#### *Learning Methods*

Co-operative lectures, independent and group assignments, drug dosage calculations

#### *Assessment*

- Active participation in lessons
- Exams on the theory of pharmacology and drug treatment for elderly people
- Precisely calculated drug dosages: to be completed before practical training in health-care centres and home nursing
- Numerical grading 1–5

## **Nursing sick and dying elderly people, 4 op KFG11B050 (study unit)**

#### *Lecturers*

- Aila Vallejo Medina, MSc
- Simo Ranta, MSc

#### *Objectives*

Upon completion of the course, students will understand the prevention of various illnesses and disorders of the elderly, and they will be aware of the various programs involved in prevention. They will be competent in identifying various symptoms of illness and their relationship to various illnesses. They will also be competent in helping elderly people cope with long-term illnesses, and they will be aware of the more common treatments for illnesses. Students will also know how to plan and implement treatment and rehabilitation for an elderly person with an illness, especially for elderly people living at home or assisted living facilities. Using theoretical information, students will analyse the process of dying and the adaptation of family and friends to the situation. They will learn to plan, arrange and develop the care of dying elderly people. Students will be motivated to follow the latest research and practical development work associated with the process of dying. They will be competent in extensively developing this area of their profession.

#### *Content*

- Special features of illnesses with elderly people and the importance of observation in diagnosing and treating their illnesses
- Common symptoms of illness of elderly people (high and low temperature, dizziness, nausea, diarrhea, constipation, shortness of breath, lack of sleep, confusion, partial eyesight, and partial hearing), connection of the symptoms to various illnesses, first-aid and treatment of the symptoms
- Adaptation of an elderly person to a long-term illness
- Model of holistic treatment and rehabilitation
- Examples of treatment and rehabilitation processes for the more important illnesses of elderly people (depression and other mental health problems, diabetes, heart problems, frailty, chronic obstructive pulmonary disease, osteoporosis, urinary incontinence, Parkinson's disease, foot ulcers, colon cancer, falling and problems with alcohol)
- Historical development of hospice care

- Process of dying in the light of theoretical models
- Support during the dying process
- Acute basic needs in hospice care, special features, principles and methods of care
- Relief for special problems during care
- Remembering and creative activities in the palliative care of elderly people
- Supporting family and friends
- Theories of grieving and grieving after hospice care
- Role as a nurse and developer in hospice care

#### *Literature / Study Material*

- Kivelä S–L. 2007. Voimavaroja unesta
- Tideiksaar R. 2005. Vanhusten kaatumiset – Opas hoidosta vastaaville
- Kivelä S–L. 2009. Depressiosta tasapainoon – Hyvä elämä iäkkäänä. Kirjapaja.
- Vallejo Medina A. et al. 2006. Vanhustenhoito
- Journal of Gerontological Nursing articles
- Attila M. 1998. Omaisten kokemuksia vanhustensairaaloiissa kuolleitten omaistensa hoidosta ja kuolemasta
- Molander G. 1999. Askel lyhenee maa kutsuu– Yli 80–vuotiaiden kuolema eletyn elämän valossa. pp. 82–231
- Molander, G. 1999. Työnä kuolemaan hoitaminen
- Poijula S. 2002. Surutyö. (assigned parts)
- Vainio A. & Hietanen P. 2003. Palliatiivinen hoito (assigned parts)

#### *Learning Methods*

- Lectures
- Independent study
- Work in pairs
- Practice making schemes for the care of an ill elderly person

#### *Assessment*

- Active participation in lessons
- Care scheme
- 2 exams

## **Practical training 7: Nursing sick elderly people in the ward, 6 op KFG11B036 (study unit)**

#### *Lecturers*

- Kristiina Vaahtera, MSc
- Elina Hietaniemi, MSc (Health Science)

#### *Objectives*

Students will be introduced to the multi–professional care of elderly patients in health–care centres. They will learn to observe the patients' vital functions, to meet their basic needs and to analyze, assess and promote the patients' functional capacity. They will also learn to plan, implement and evaluate the nursing process from a patient–centred and theoretical perspective. Students will apply methods of social work and nursing in the care of elderly patients, and reflect and analyze their learning experiences, the connection between theory and practice as well as their own professional development.

#### *Content*

- Monitoring the vital functions of elderly people and meeting the basic needs of elderly patients
- Nursing of elderly patients, supporting holistic functional capacity
- Nursing process
- Presuppositions, objectives, interventions and evaluation in nursing
- Nursing principles and methods and their implementation
- Counselling and guidance of elderly patients and working with their families
- Multi–professional collaboration in the care of elderly patients
- Terminal care in health–care centres
- Quality of nursing and its different constituents

#### *Learning Methods*

- Practical training in the ward of a health–care centre or similar unit
- Assignments

### *Assessment*

- Approved practical training in a health–care centre ward or similar unit (evaluation criteria: Satisfactory, Good and Excellent)
- Self–evaluation
- Feedback by the supervisor
- Health–care scheme
- Assignment involving the care of a wound
- Training graded numerically on these various parts

### *Prerequisites*

Successfully completed courses in calculating drug doses

## **Practical training 8: Home nursing of elderly people, 6 op KFG11B037 (study unit)**

### *Lecturers*

Aila Vallejo Medina, MSc

### *Objectives*

Students will learn to support the health and functional capacity of elderly people and to promote the health, care and rehabilitation of elderly people in a multi–professional manner.

### *Content*

- Health–care and service scheme in the treatment of an ill elderly person
- Participation in the care and rehabilitation of elderly people receiving home nursing
- Familiarisation with various elderly groups and the special features of their treatment and nursing procedures in a home nursing situation
- Issues that are emphasised in home nursing situations
- House–calls as a work procedure
- Multi–professional work in the treatment of an ill elderly person
- Family care–givers in the field of home nursing
- Issues of quality in home nursing

### *Literature / Study Material*

- Literature required in the KFG11B9 module
- Regulations pertaining to home nursing
- Ministry of Social Affairs and Health: Asiakaslähtöinen kotihoito–opas ikääntyneen kotihoidon laatuun

### *Learning Methods*

- Discussions with the clinical supervisor and the teacher
- Learning contract
- Participation on service provision
- Theme–based journal
- Interview with a family care–giver

### *Assessment*

- Approved practical training
- Learning contract
- Self–evaluation
- Feedback from clinical supervisor and teacher
- Theme–based journal
- Report of interview with family care–giver
- Numerical grading

### *Prerequisites*

- KGF11B032: Medical Care of the Elderly and Clinical Pharmacology
- KGF11B050: Caring for an Ill Elderly Person

## **Supporting elderly people by social work interventions, 6 op KFG11B11 (study entity)**

Objectives: Students will learn to identify elderly clients' social problems and become aware of the potential of social work interventions in the promotion of the clients' and their significant others' participation. The students will acquire a keen interest in the application of social work methods in elderly care. They will learn about work with families, various generations and groups, networking and the theoretical and practical applications of methods of empowerment. Students will also learn to select appropriate methods for various practical situations.

## **Family work and networking in elderly care, 2 op KFG11B040 (study unit)**

### *Lecturers*

Koivula Anna–Kaarina, MSSc

### *Objectives*

Upon completion of the course, students will have command of the central concepts and theoretical foundations associated with work with families, and they will identify the impacts aging has on relationships with the spouse and family. Students will be familiar with the challenges associated with family care and know how to analyse situation in a diverse way from the viewpoint of the elderly person and his/her family. Students will also develop their professional readiness to work with families of elderly people, and they will be adept in perceiving practical situations where family care and generation work is needed. Students will understand the concept of generation work and know not to create activities that improve the sense of community between different generations. Students will also understand the concept of networking and the central methods used in networking and be perceptive of situations in which the networks of the elderly can be utilised to promote their well-being.

### *Content*

- Concept of family and the impact of aging on the relationships with one's spouse and family
- Being a grandparent in various environments in the light of research
- Concept of family care, theoretical foundations and methods
- Generation work, as a concept and activity
- Concept of social network, significance of networks and their use in supporting the well-being of the elderly

Research and development: 1 cr

### *Literature / Study Material*

- Seikkula J. & Arnkil E. 2005. Dialoginen verkostotyö
- Andersson S. 2007. Kahdestaan kotona
- Juhela P. 2006. Missä on isäsi, kuinka voi äitisi? Sukupolvet ikääntymisen muutoksissa
- Marin M. & Hakonen S. 2003. Seniori- ja vanhustyö arjen kulttuurissa. (assigned parts)
- Nolan M. et al. (eds.). 2001. Working with Older People and Their Families
- Other material distributed by the lecturer

### *Learning Methods*

- Lectures
- Case studies
- Drama exercises
- Group assignments

### *Assessment*

- Active participation in lectures
- Approved group assignment

## **Group and community work in elderly care, 2 op KFG11B041 (study unit)**

### *Lecturers*

Anna–Kaarina Koivula, MSSc

### *Objectives*

The students will learn the theoretical background of community work and learn to identify challenges and potential in the community work with elderly clients. The students will know what group work involves and learn to analyse the group work process. They will learn to plan purposeful group activities for groups of elderly clients or workers.

### *Content*

- Community work with elderly clients

- Social pedagogy in elderly care
- Basics of group work
- Supervision of groups in elderly care

Research and development: 1 cr

#### *Literature / Study Material*

- Kurki, L. 2007. Innostava vanhuus
- Jauhiainen R. & Eskola M. 1994: Ryhmäilmiö
- Marin M. & Hakonen S. 2003: Seniori- ja vanhustyö arjen kulttuurissa (assigned parts)
- Pitkälä K. (ed.). 2004. Ikääntyneiden yksinäisyys –ryhmäkuntoutuksen kehittäminen ja koulutus
- Central Union for the Welfare of the Aged: Geriatrisen kuntoutuksen tutkimus– ja kehittämishanke: tutkimusraportti 4
- Marjovuori A., Pitkälä K. and Routasalo P. 2004. Ikääntyneiden yksinäisyys: Senioripysäkin ryhmäterapia psykososiaalisena kuntoutuksena. Geriatrisen kuntoutuksen tutkimus–ja kehittämishanke. Research report 8. Central Union for the Welfare of the Aged
- Other material provided by the lecturer

#### *Learning Methods*

Lectures, assignments, group work on literature, independent analysis of group work

#### *Assessment*

- Active participation in lessons
- Approved independent assignment
- Group assignment
- Numerical grading 1–5

## **Empowering interventions in elderly care, 2 op KFG11B042 (study unit)**

#### *Lecturers*

Anna–Kaarina Koivula, MSSc

#### *Objectives*

Students will explore central ideas and challenges in empowering. They will learn to assess elderly clients' environments and everyday services from the perspective of empowerment and to seek potential for practical applications. The students will become familiar with the elderly of various minority groups and learn to promote their welfare, visibility and participation in society and to advance interaction between cultures.

#### *Content*

- Theory foundations of empowerment
- Empowerment in elderly care
- Minority groups in elderly care in Finland

Research and development: 1 cr

#### *Literature / Study Material*

- Seppänen M. et al (eds.). 2007. Vanhuus ja sosiaalityö
- Räsänen J. 2006. Voimaantumisen mahdollistaminen ja sen ratkaisut.
- Thurst D. et al (eds.). 1995. Empowering Older People. An International Approach.

#### *Learning Methods*

Lectures, co-operative exercises, group work, examination

#### *Assessment*

Active participation in lessons, examination

## **Preventive and rehabilitative elderly care, 7 op KFG11B12 (study entity)**

Objectives: Students will learn the central principles and methods associated with preventive and rehabilitative elderly care to promote the patients' functional capacity and welfare and to prevent premature need for services or institutional care. Students will also learn to support the autonomy and independent coping of elderly people living at home. They will acquire the ability to support family care-givers to cope and maintain their functional capacity.



## **Rehabilitation and physiotherapy of elderly people, 2 op KFG11B044 (study unit)**

### *Lecturers*

Pia Haapala, MSc

### *Objectives*

Students will learn the basic ideas behind client-centred rehabilitation and learn to collaborate with other professionals and families of elderly clients. They will be familiar with the rehabilitation service system and its principles. They will learn to supervise elderly-care staff in the use of rehabilitation services, and they will gain insight into the potential of physiotherapy in supporting functional capacity and in rehabilitating elderly clients with illnesses. Students will also be competent in supervising elderly clients in the use of physiotherapy services and adaptive aids.

### *Content*

- Philosophy of rehabilitation and central concepts
- Rehabilitation legislation
- Elderly clients in rehabilitation
- Rehabilitation needs and potential in elderly care
- Elderly people, exercise and balance
- Promotion of functional capacity by means of physiotherapy
- Adaptive aids in the promotion of functional capacity and related counselling
- Physiotherapy and occupational therapy for common diseases

Research and development: 1 cr

### *Literature / Study Material*

- Härkäpää K. 2005. Kuntoutuksen perusteet
- Pitkälä K., Savikko N., Routasalo P. 2006. Kuntoutumisen solmukohtia–Geriatrisen kuntoutuksen tutkimus- ja kehittämishanke. Central Union for the Welfare of the Aged. (assigned parts)
- Suominen M. et al. 2001. Ikääntyvien liikunta, terveys ja toimintakyky. (assigned parts)
- Tideiksaar R. 2005. Vanhusten kaatumiset. Opas hoidosta vastaaville.
- Pitkälä K. (ed.). 2004. Ryhmäkuntoutuksen kehittäminen ja koulutus (assigned parts)

### *Learning Methods*

Lectures, discussion, demonstrations, practical laboratory studies

### *Assessment*

Active participation in lessons, examination

## **Supporting family care-giving, 2 op KFG11B045 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will study family care-giving from the perspectives of families/significant others and services. They will familiarise themselves extensively with research, reports and guidelines on family care-giving. They will also learn to organise, support and supervise family care-giving.

### *Content*

- Experience of being a family care-giver/other care-giver in the light of research
- Methods and procedures for supporting the family care-giver/other care-giver
- Challenges in the development of family care-giver/other care-giver work

Research and development: 1 cr

### *Literature / Study Material*

- Saarenheimo M. & Pietilä M. 2005. Omaishoidon tukeminen Suomessa
- Geriatrisen kuntoutuksen tutkimus- ja kehittämishanke (assigned parts)
- Voutilainen et al. 2007. Omaishoidon tuki sosiaalipalveluna (assigned parts)
- Mikkola T. 2009 Sinusta kiinni–tutkimus puoliso- ja arjen toimijuuksista
- Research chosen by the lecturer to be summarised in pairs

### *Learning Methods*

Lectures, collaborative learning, summaries on research

### *Assessment*

Summaries and examination/essay

## **Practical training 10: Rehabilitation supervision of groups of elderly clients/family care-givers, 3 op KFG11BE046 (study unit)**

### *Lecturers*

- Pia Haapala, MSc (Nursing)
- Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will learn to apply rehabilitative and creative methods to support the well-being, functional capacity and health of various groups of elderly people or family care-givers. They will possess the readiness needed in planning, implementing and evaluating the rehabilitating process of the elderly and family care-giver groups.

### *Content*

- Rehabilitating process of the elderly and family care-giver groups: planning, implementation and evaluation
- Research and development: 3 cr

### *Literature / Study Material*

Literature assigned in the theoretical studies for the module

### *Learning Methods*

- Work in family care-giver families
- Evaluation of the functional capacity of a family care-giver
- Making a plan for rehabilitation + implementation and evaluation
- Planning and organising a recreation day for families of elderly people and multi-professional evaluation of it with other students studying social welfare and health care

### *Assessment*

- Numerical evaluation of the rehabilitation plan (pair work) by training supervisors
- Active participation in the planning, organisation and evaluation of the recreation day

## **Care and rehabilitation of dementing elderly people, 9 op KFG11B13 (study entity)**

Students will extensively explore the experiential world of elderly people suffering from dementia and study the challenges in their care and rehabilitation. They will be introduced to the current service delivery system, gain experience in dementia work and become aware of its development needs.

## **Care of dementing elderly people, 2 op KFG11B048 (study unit)**

### *Lecturers*

Aila Vallejo Medina, MSc

### *Objectives*

Students will explore the experiential world and behaviour of elderly people suffering from dementia and gain qualifications needed to promote the well-being of the patients. They will possess the readiness to prevent and cope with the behavioural problems associated with dementia and to plan and implement care that takes into consideration the individual characteristics of a patient with dementia. Students will also have knowledge of obtaining and developing services for the elderly people with dementia of how to support the family caring for a dementia patient.

### *Content*

- Experiential world of people suffering from dementia and their care
- Special features of the linguistic expression of people with dementia and supporting communication
- Wandering patients and taking a therapeutic approach
- Problems with nutrition and eating and solutions for them

- Behavioural problems of patients with dementia, prevention, and coping with them
- Special features to consider when obtaining services for people with dementia
- Quality care environment and community
- Ethical questions concerning work with dementia patients
- Quality of the work with dementia and the development of it
- Various quality-control systems in caring for patients with dementia
- Caring and professional competence in working with dementia patients
- Special features of case management in working with dementia patients
- Job duties of memory nurses and dementia co-ordinators

#### *Literature / Study Material*

- Kankkunen P. 2008. Dementiaoireisen ihmisen kivun hoidon hyvät käytännöt. In Voutilainen P. & Tiikkainen P. (eds.). 2008. Gerontologinen hoitotyö.
- Kirsi T. 2004. Rakasta, kärsi ja kirjoita – Tutkimus dementoitunutta puolisoaan hoitaneiden naisten ja miesten kertomuksista. pp. 59–93 and 229–240
- Day: Kuntotutusratkaisuja dementoituvan arkeen pp. 5–163
- Topo P. 2005. Teknologia dementiahoidossa
- Vallejo Medina, A. et al. 2006. Vanhustenhoito. pp. 275–302
- Articles from Gerontological Nursing and Memo (former Dementia uutiset) magazines

#### *Learning Methods*

Lectures, discussions, pair and group work

#### *Assessment*

Active participation in the lessons and an examination

## **Practical training 12: Care of dementing elderly people and promotion of their functional capacity, 7 op KFG11BE049 (study unit)**

#### *Lecturers*

Aila Vallejo Medina, MSc (Nursing)

#### *Objectives*

Upon completion of the training students will

- be competent in approaching elderly people with dementia from a therapeutic point of view, and know how to plan and carry out quality dementia treatment,
- be specialised in supporting the communication of elderly people with dementia and preventing behavioural problems,
- have knowledge of the entire service system associated with dementia treatment and be competent in working on the various levels of the service system, and
- be competent in analysing the quality of treatment in dementia treatment communities, and in developing the level of services produced by those communities.

The training primarily takes place in ordinary dementia care units, but students may also take part in dementia consultation or in day activities for rehabilitative dementia care.

#### *Content*

- Learning to use the CERAD Test
- Familiarisation with the service chain for elderly people with dementia
- Familiarisation with the work of a rehabilitation counselor for dementia patients
- Participation in the service processes for patients in dementia units and small dementia care homes
- Participation in a ward staff meeting to discuss a topic pertaining to the treatment of a patient
- Participation in the mid-term seminar

#### *Literature / Study Material*

Course material

#### *Learning Methods*

- Practical training
- Apprenticeship
- Journal
- Staff meeting about the treatment of a dementia patient

*Assessment*

- Theme-based journal
- Apprenticeship (aims, self-evaluation, feedback from training supervisor)
- Graded on the basis of these various parts

*Prerequisites*

KFG11B048: Treatment of an Elderly Person with Dementia

## **Case management in elderly care, 10 op KFG11C2 (study entity)**

Students will further their knowledge about the problems associated with well-being and health that elderly people may have, the factors influencing those problems and the services and specialists needed to the prevention, care and rehabilitation of the problems. Students will expand their knowledge of the application of theory to practice in making house-calls. Students will acquire experience in the personal case management of elderly people.

## **Integration seminar of elderly care services, 3 op KFG11C2001 (study unit)**

*Lecturers*

- Aila Vallejo Medina, MSc
- Anna-Kaarina Koivula, MSc

*Objectives*

Students will further their knowledge of the problems associated with the well-being, health and social affairs of the elderly and of the means, methods and systems for influencing these issues on the level of the individual, the community and the society. Students will enhance their abilities to acquire and process information. They will reinforce their gerontologic expertise in working as case managers for individual elderly people and as co-ordinators multi-professional elderly care.

*Content*

Students familiarise themselves with a problem pertaining to the well-being and health of elderly people, i.e. the underlying factors of the problem, case management and the various stages of the service chain, the treatment and rehabilitation system, multi-professional collaboration, individual service solutions, quality-assurance systems, and the duties and roles of a bachelor of elderly care. Possible topics (problems) may include The Depressed Senior, The Lonely Senior, Diabetic Senior and Rehabilitation for Thigh Amputation, The Battered Senior, The Alcoholic Senior, Rehabilitating an Elderly Stroke Patient, Cancer and the Elderly Patient, etc. Research and development: 1 cr

*Literature / Study Material*

The literature and material for the course depends on the topics the students choose.

- Written material
- Online material
- Latest research
- Articles from field-related magazines

*Learning Methods*

- Independent study
- Handbook
- Seminars
- PowerPoint presentations of the material

*Assessment*

- Approved handbook
- Active participation in the seminars
- PowerPoint presentation

## **Practical training 13: Management and co-ordination of preventive and rehabilitative elderly care se, 7 op KFG11C2002 (study unit)**

*Lecturers*

Anna-Kaarina Koivula, MSc

*Objectives*

Students will further their knowledge and skills in making preventive house-calls and engaging in case management, especially, as a significant part of elderly care. They will understand the importance of house-calls and case management as regards the ability of an elderly person to live at home and the overall service system in society. Upon completion of the course, students will be competent in planning and implementing house-call concepts on the municipal level to maintain and improve the health, well-being and ability to function of elderly people. They will also be capable of assessing the needs for services that support the physical, mental, cognitive and social abilities together with an elderly person. They will understand the nature of case management as a multi-phase activity that calls for responsibility, have command of the phases of managing individual cases, and be competent in utilising case management in the Finnish elderly-care system. Students will be capable of customising an optimum service package for an elderly person and the staff taking care of him/her.

*Content*

Students will make preventive and rehabilitative house-calls to the homes of elderly people. They will also visit elderly people who have a need for many different types of services. They will plan a case management process and service package for an elderly person needing many types of services.

- Interviews and assessment forms for preventive house-calls
- Benefit of the preventive house-calls and assessment

Research and development: 3 cr

*Literature / Study Material*

- Häkkinen H. & Holma T. 2004: Ehkäisevä kotikäynti –tuki vanhuksen kotona asumiselle
- Other material to be announced by the teacher

*Learning Methods*

- Introductory seminar
- Preventive house-calls as a part of preventive elderly care: concepts and idea
- Concept and process of case management
- Working with clients
- Reports and seminar to discuss them

## **Management and development of elderly care, 33 op KFG11C1 (study entity)**

Objectives: Students will reflect on the essential stages of the elderly care process from the perspectives of management and development. They will learn to manage elderly-care, service-providing units and to supervise an elderly care unit. Students will have basic knowledge of the economy, pricing and cost calculations involved in elderly care. They will be introduced to quality control in elderly care, the planning of it, implementation, evaluation and development. Students will be competent in planning and implementing a small-scale projects together with representatives of the working world. They will possess skills in the marketing of services and their own expertise.

## **Management and economics in elderly care services, 5 op KFG11C001 (study unit)**

*Lecturers*

- Elina Hietaniemi, lehtori, MSc (Health Science)
- Simo Ranta, MSc
- Kari Jokiranta, MSSC

*Objectives*

Students will acquire the readiness needed to manage elderly care organisation. They will be familiar with the areas of self-management and the management of activities and personnel, and be able to analyse the significance of these areas in the productivity of the organisation. Students will understand the significance of management in the improvement of the quality of client relations and in the development of their own role and identity as a professional. They will also understand the significance of budgeting and will acquire the skills needed to compile budgets and make cost calculations and to price services. Students will be familiar with the more crucial labour legislation.

*Content*

- Areas of management
- Levels of management
- Duties involved in management
- Roles of management

- Labour legislation
- Concepts and goals of supervision
- Analysis and evaluation of the needs, means, and impacts of management in elderly care
- Structure and compilation of budgets
- Cost calculations for service organisations
- Pricing services

Research and development: 1 cr

#### *Literature / Study Material*

- Laaksonen H., Niskanen J., Ollila S. & Risku A. 2005. Lähijohtamisen perusteet terveydenhuollossa
- Nikkilä J. & Paasivaara L. 2007. Arjen johtajuus. (assigned parts)
- Silvennoinen M. & Kauppinen R. 2006. Onnistu alaisena
- Molander G. 2003. Työtunteet esimerkkinä vanhustyö (assigned parts)
- Paunonen–Immonen M. 2001. Työnohjaus: toiminnan laadunhallinnan varmistajana
- Melin T. 2003. Tuotteistuksen ja kustannuslaskennan hyvät käytännöt kuntien sosiaali- ja terveydenhuollossa. (assigned parts)

#### *Learning Methods*

- Lectures
- Theme-based journal during the training period
- Cost calculations
- Case studies + analysis

#### *Assessment*

- Active participation in lectures and seminars
- Exams (50 %)
- Journal (50 %)
- Approved cost calculations

## **Quality management in elderly care, 2 op KFG11C0021 (study unit)**

#### *Lecturers*

Elina Hietaniemi, MSc

#### *Objectives*

Students will understand the central role of quality control as an operating model for personnel working in elderly care, and in the development of elderly care and risk management. They will possess the skills needed to use quality control procedures and tools in their own work. Students will also understand the significance of evaluating activities in the development of elderly care. They will be competent in planning and implementing activities that develop elderly care together with other elderly care personnel and in evaluating the quality of services.

#### *Content*

- Quality control
- Prerequisites for successful quality control
- Responsibility for quality
- Basic prerequisites for implementing quality control
- Balanced Score Card
- Quality control systems, e.g. EFQM

Research and development: 1 cr

#### *Literature / Study Material*

- Lehtoranta H. et al. (eds.). 2007. Ikäihmisten laitoshoidon laadun kehittämishanke
- Heinola R. (ed.). 2007. Asiakaslähtöinen kotihoito. Opas ikääntyneiden kotihoidon laatuun. (assigned parts)
- Outinen M. et al. 1994. Laatu ja asiakas. (assigned parts)
- Ministry of Social Affairs and Health. 1999. Sosiaali- ja terveydenhuollon laadunhallinta 2000– luvulle
- Niiranen V., Stenvall J. & Lumijärvi I. 2005. Kuntapalvelujen tuloksellisuuden arviointi (BSC)
- Excellence Finland. 2003. EFQM Excellence Model
- Liimatainen L. & Ryttyläinen (eds.). 2006 Innovoi, vaikuta ja kehitä (IVA). (assigned parts)

### *Learning Methods*

Lectures, assignments, development assignment during the practical training period

### *Assessment*

Active participation in lectures and assignments. The grade is based on two parts: examination (50 %) and development assignment (50 %).

## **Project work as a tool in the development of elderly care, 2 op KFG11C003 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Science)

### *Objectives*

The students will learn to plan, manage and evaluate projects. They will apply their existing knowledge in the planning and implementation of a project. This is an online course in the Moodle learning environment.

### *Content*

- Areas of project work
- Managing a project
- Projects in the development of elderly care

Research and development: 1 cr

### *Literature / Study Material*

- Ruuska K. 2005. Pidä projekti hallinnassa
- Other material announced by the teacher in Moodle

### *Learning Methods*

- Independent online study
- Implementation of a project during a practical training period
- Participation in seminars

### *Assessment*

- Moodle assignments
- Project report (numerical grade)
- Active participation in the seminars

## **Entrepreneurship in elderly care, 2 op KFG11C004 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will acquire basic qualifications needed in providing and marketing social and health services.

### *Content*

- Internal and external entrepreneurship for service delivery systems
- Productisation of products for the elderly
- Marketing of one's own expertise and the enterprise
- Future visions in the production of services for the elderly

### *Literature / Study Material*

To be announced in Moodle.

### *Learning Methods*

Online learning with Moodle

### *Assessment*

Approved assignments in Moodle

## **Practical training 14: Management and development of elderly care, 13 op KFG11CE0051 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will explore management and the role of the supervisor in elderly care institutions and projects. They will apply theoretical knowledge to analyse their personal qualifications and potential as a supervisor and developer of quality.

### *Content*

- Practical training in a service system for elderly care where students learn about management, finances, quality of elderly care and evaluation of quality
- Development task pertaining to quality together with the personnel in the work community

Research and development: 7 cr

## **Practical training 15: Influencing in the field of elderly policy and services, 2 op KFG11CE0061 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc

### *Objectives*

Students will practise disseminating information in an elderly care unit, increase their qualifications and gain experience of marketing their professional skills.

### *Content*

- Lectures
- Poster
- Writing field-related articles about one's own thesis and marketing them
- Presentation of one's thesis to interest groups

### *Literature / Study Material*

Material announced by the teacher

- Methods of learning
- Poster and article based on one's thesis

### *Assessment*

Numerical grade for article and poster

## **Practical training 16: Elderly care development project, 7 op KFG11CE0071 (study unit)**

### *Lecturers*

Elina Hietaniemi, MSc (Health Science)

### *Objectives*

Students will apply the theoretical knowledge learnt during the course to quality control and project work and make use of other skills and knowledge acquired during their studies to implement a project together with the personnel of an elderly care unit for the development of elderly care services.

### *Content*

Compilation of a project plan

- Presentation of the plan in a seminar
- Project report
- Seminar presentation

Research and development: 7 cr

### *Learning Methods*

Collaborative project together with representatives of the working world

### *Assessment*

Study Descriptions



- Numerical grade for the project report and seminar presentation
- Presentation of the results to the work community

#### *Prerequisites*

Project Work as a Tool to Develop Elderly Care: 2 cr (before the training starts)

### **DIPLOMA WORK, 15 op KFG11D (study entity)**

During the thesis process, students are expected to integrate theoretical knowledge, skills acquired through practical training and their personal growth to adopt the role of a professional. Students are also expected to demonstrate that they are qualified to develop elderly care practices further. The thesis writing process includes seminars (seminars on the topic, research plan, methodology and research report), as well as the presentation of the thesis in the final seminar. Students will also sit a Maturity Test in their native language. This involves an essay on the methodology and/or topic of the thesis.

### **Final thesis and maturity test, 15 op KFG11C008 (study unit)**

#### *Lecturers*

- Sirkka-Liisa Palomäki, PhD
- Elina Hietaniemi, MSc (Health Science)
- Aila Vallejo Medina, MSc
- Kari Jokiranta, DSc

#### *Objectives*

Students will be competent in applying an investigative and development-oriented approach to the practice of elderly care. As their final thesis, they will organize and implement a research or development project. They will formulate a relevant research problem or development project, plan and implement the research/development process and apply their R & D skills. They will know how to apply knowledge derived from practice to their study and the development of elderly care. Students will write a research report in the appropriate academic style and draw conclusions for the development of elderly care. They will also understand the importance of interaction and collaboration in R & D projects involving the working world.

#### *Content*

- Defining research problems/development projects
- Approaches to research in and collaboration with the working world
- Research plan for the final thesis
- Implementation and evaluation of the thesis
- Research report
- Acting as an opponent (peer evaluation) and supervision

#### *Literature / Study Material*

- Guidelines for Writing a Thesis. Seinäjoki University of Applied Sciences.  
<http://intra.seamk.fi/opiskelijat/opinnaytetyo.htm>
- Material for doing research and development work: [intra.seamk.fi](http://intra.seamk.fi)

#### *Learning Methods*

Seminars, individual and group supervision, peer evaluation, Maturity Test

#### *Assessment*

- General criteria for final theses
- Self-evaluation,
- Feedback from the collaborative partner
- Participation in seminars and supervision
- Maturity Test

### **FREE CHOICE STUDIES, 8 op KFG11F (study entity)**

Objectives: Students choose elective studies in other faculties in Seinäjoki University of Applied Sciences or in other suitable higher education institutions. It is expected that the courses selected are related to students' professional studies and enhance their professional qualifications in elderly care.

# Degree programme in Hospitality Management (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Hospitality Management

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The Degree Programme in Hospitality Management at the Kauhajoki unit of the Business School of Seinäjoki University of Applied Sciences comprises courses in service-providing operations, projects, practical training, elective courses and a final thesis. Students may specialise in catering, experience production or business management. The studies involve process and project learning. The study modules comprise courses concentrating on various subjects, customer-oriented services, and projects. The end of the programme focuses on development projects to prepare students for the working world.

The studies concentrating on service operations consist of practical work in various service-providing environments, studies in the theory of service to support that work, and of assignments that combine theory and practice. Service-providing environments include Restaurant Kaarin, student restaurant Risetti, Sortti&Serviisi café and reservation restaurant and store services.

Emphasis during the first year of studies in service operations is placed on the issues involved in providing services. The second year concentrates on the management of services and leadership, and the third and fourth years concentrate on the development of services. During the first and second years of study, there is also a special theme, the purpose of which is to further students' expertise of the topic for a period of one semester. Students do assignments, which enable them to apply the theory they have learned on the topic to the service environment in which they are working at the moment.

The themes for the first year of studies in the Service Production module include safety and health aspects in food production, economy, and creation of consumer experiences. The themes for the second year of studies in the Services Management module include marketing, human resource management, financial administration, and the management of the quality chain. Studies during the third and fourth years of study concentrate on the development of services, which involves a great deal of project work. Project studies comprise various topical or catering-related projects. A typical project involves an individual assignment pertaining to the development of a topical phenomenon, which is commissioned by a representative in the working world. Some of the projects, however, recur on a regular basis. The projects vary in how extensive they are, how long they last and the topic(s) they entail.

The roles of the teachers and students in the projects also vary. Students practice working in various project-related job positions, e.g. as project managers. Depending on the situation and the progression of their studies, students may seek to partake in projects that interest them the most and specialise in a certain area within a project, as an expert in catering or financial administration for example. Students' level of independence and responsibility in project management increases as they progress in their studies. The number of credits achieved in a project may vary among students depending on their role in the project in question.

## PROFILE OF THE PROGRAMME

The purpose of the programme is to produce Bachelors of Hospitality Management who are capable of working in an international environment, but who also value and make use of the local environment, who possess skills in teamwork and who are professionals in providing services and experts in business. They have the ability to take initiative, and they have internalised the concept of entrepreneurship and are developers of the working world. They have adopted concrete ways of working, not merely the theory of those ways. Bachelors of Hospitality Management have good social skills and consider the aspects of collaboration and consumer needs in development work. They also take societal and ecological responsibility. They are competent in utilising information and carrying out business operations. Moreover, graduates from the programme are able to make use of all of the human senses and are experts in catering, who guide others in creating a culinary adventure from food. They consider aspects of health, safety, experience and finances in their work and are competent in applying the theory of service-providing business in practice.

## KEY LEARNING OUTCOMES

### *Competence in service culture*

A Bachelor of Hospitality Management

- \* understands hospitality as the most essential value and success factor in the field.
- \* can produce healthy, safe and profitable services to promote the well-being of customers.
- \* is familiar with and observes aesthetical and ethical perspectives of providing services (premises and service products, communication).

- \* knows the principles of consumer behaviour and is able to utilise that knowledge when developing services.

#### *Competence in service system*

A Bachelor of Hospitality Management

- \* is able to design, produce and develop services with consideration to the operational environment.
- \* is able to describe, supervise and evaluate service processes (product development, profitability, organisation of work, supervision and development).
- \* is able to develop services according to the practices used in product development and productisation.
- \* is familiar with field-related safety requirements and is able to apply them in one's work.

#### *Competence in service management*

A Bachelor of Hospitality Management

- \* understands company strategies and is able to utilise them as tools to manage service-providing operations.
- \* is able to plan, execute and evaluate one's daily leadership and the leadership of one's organisation.
- \* is able to organise the activities in an organisation and to utilise the expertise of individuals, teams and communities.

#### *Competence in business management*

A Bachelor of Hospitality Management

- \* is competent in analysing customer relationships from the point of view of business development.
- \* understands the essential business concepts and has adopted a business-oriented way of thinking.
- \* is able to foresee the impacts of alternative modes of operation on economic results and competitiveness.
- \* is able to apply the concept of entrepreneurship as an entrepreneur and employee.
- \* is able to work in various types networks and to utilise and develop them.

#### *Competence in the service environment*

A Bachelor of Hospitality Management

- \* is competent in evaluating the impact of purchasing and producing of services on the consumer, environment and society.
- \* is able to take economic, social, ecological and cultural responsibility for the production and management of services.
- \* understands the significance of internationalisation, globalisation, and different cultures to the service culture and development of the field.
- \* is aware of the significance of one's activities as regards regional development.

## **OCCUPATIONAL PROFILES**

Students in the Degree Programme in Hospitality Management gain a variety of skills to work in various hospitality organisations. Bachelors of Hospitality Management work in the fields of tourism, catering and hospitality as experts and in development, sales, marketing, and management or as entrepreneurs.

## **ACCESS TO FURTHER STUDIES**

See University of applied sciences act 351/2003, in Finnish.

## **COURSE STRUCTURE**

The courses in the degree programme are available at PALVELUJ 2009, 210 cr (1.9.2009)

## **EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

## **CONTACT PERSONS**

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Student counsellor: Ms Virpi Antila, tel. +358 20 124 5621, GSM +358 40 830 4208, e-mail: virpi.antila@seamk.fi

## **Degree programme in Hospitality Management (In Finnish) (1.9.2009) PALVELUJ 2009 (Food Management and Entrepreneurship)**

Code	Name	Study Year	CR
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		1.	2.	3.	4.	
KI15PERAM	<b>BASIC AND PROFESSIONAL STUDIES</b>					<b>155</b>
OR	<b>Orientation</b>					<b>11</b>
KI15AORI001	Studying and occupational skills	x				5
KI15AORI002	A succesful project	x				3
KI15AORI003	Information technology	x				3
KI15AKIELI	<b>Language studies</b>					<b>14</b>
KI15AKIE001	Finnish language and Communication	x				4
KI15AKIE002	Swedish	x				4
KI15AKIE003	English	x				4
KI15AKIE004	New language	x				2
KI15BTUOTPE	<b>Basics of service production</b>					<b>18</b>
KI15BRPT014	Safety in food production	x				6
KI15BRPT015	Health aspects in food production	x				6
KI15BRPT003	Economy in food production	x				3
KI15BRPT004	Peak experiences in food production	x				3
KI15BTUOTTA	<b>Service production</b>					<b>15</b>
KI15BRPT016	Service production	x				15
KI15BJOHTPE	<b>Basics in services management</b>					<b>22</b>
KI15BRPJ001	Marketing		x			4
KI15BRPJ002	Personnel Administration		x			4
KI15BRPJ003	Financial and operational planning		x			4
KI15BRPJ004	Food Service Quality Management		x			4
KI15BRPJ005	Advanced nutrition studies		x			4
KI15BRPJ010	Basics of law		x			2
KI15BJOHTAM	<b>Service Management</b>					<b>12</b>
KI15BRPJ011	Service Management		x			12
KI15CLIHKKE	<b>Service Business Development</b>					<b>25</b>
KI15CRPK001	Research and development		x			5
KI15CRPK002	Development of service concept		x			5
KI15CRPK003	Development of esthetic and business image		x			5
KI15CRPK004	Development of nutritional effect		x			5
KI15CRPK005	Development of food and menus		x			5
KI15CRPK006	Development of quality and safety		x			5
KI15CPROJOP	<b>Projects</b>					<b>23</b>
KI15CPROJ01	Peak experience event			x		5
KI15CPROJ02	Business activities			x		5
KI15CPROJ03	Fair and exhibition			x		6
KI15CPROJ04	Research project			x		5
KI15CPROJ05	Quality development			x		5
KI15CVEPROJ	<b>Optional projects</b>					<b>15</b>
KI15CPROJ06	Nutrition project			x		5
KI15CPROJ07	Food management			x		5
KI15CPROJ08	Some other current project			x		5

KI15CPROJ09	Production of Food Experience (In English)			x		5
VAVAL	<b>ELECTIVE STUDIES</b>					<b>10</b>
HAR	<b>PRACTICAL TRAINING</b>					<b>30</b>
KI15EPEHAR1	Basic training	x				12
KI15EERHAR1	Specialised training			x		18
OPIN	<b>THESIS</b>					<b>15</b>
KI15FTU0001	Thesis				x	15

## Study Descriptions

### Studying and occupational skills, 5 op KI15AORI001 (study unit)

#### Lecturers

Eija Putula–Hautala, MSc (nutrition), Liisa Nuotio, MSc, Anu Latva–Reinikka, BBA, BSc and Sirkka Nieminen, MA

#### Objectives

Students will be oriented into studying in the School of Food Management affiliated with Seinäjoki University of Applied Sciences, as well as the town of Kauhajoki as a place to study. They will be aware of their status as students and be able to apply various learning methods to their studying. Students will learn to work independently, understand the process of gaining knowledge, be competent in seeking, evaluating and using the information they find. They will become familiar with the opportunities their degree has to offer in preparing them to work as leaders and experts in the hotel and restaurant business. Students will be aware of the various channels that may be used to look for jobs, and they will know how to write up a job application and curriculum vitae. Students will also understand the significance of life-long learning in the development of themselves as individuals and of their professional skills.

#### Content

- Studying at Seinäjoki University of Applied Sciences in Kauhajoki
- Learning methods and environment
- Instructions for doing written assignments at Seinäjoki UAS
- Library and information services at Seinäjoki UAS, information retrieval, databases and the Internet, main producers of information in the food and hospitality field, evaluation and use of information
- Student organizations and tutor system
- Personal study plan
- Professional awareness
- Seeking jobs and career planning

#### Literature / Study Material

- Study Guide and Learner's Guide
- Heikkinen, V.A. 2004. Matkalla restonomiin ydinosamiseen. Haaga series. Tutkimuksia 8. Haaga Insitute's University of Applied Sciences.
- Other necessary study material to be announced during the course

#### Learning Methods

Lecture, group work and assignments, and online learning

#### Assessment

Active participation, written assignments and exam

#### Further Information

One credit for online learning

### A succesful project, 3 op KI15AORI002 (study unit)

#### Lecturers

Elina Ojala–Wahlroos, MSc (Econ.) and Sirkka Nieminen, MSc

#### Objectives

Students will possess the basic knowledge and skills and methods involved in project planning and work. They will

develop their skills in team work, management and leadership, problem solving, organising and stress management. Students will be competent in working purposefully in a project's various communicative situations. They will be able to consider the receiver and the situation and communicate in an organised, understandable and convincing way.

### *Content*

- Project phases
- Project plan and time schedule
- Group communication, negotiations
- Project management
- Project changes, risks and problems
- Planning a catering project
- Written and oral communication skills needed in projects

### *Literature / Study Material*

- Artto, K., Martinsuo, M., Kujala, J. 2006. Projektiliiketoiminta.
- Kortetjärvi-Nurmi, S., Kuronen, M.-L. & Ollikainen, M. 2002. Yrityksen viestintä.
- Kallio, H. 2006. Point: Tehoa ja taitoa työelämän esiintymistilanteisiin.
- Other study material to be announced at the beginning of the course

### *Learning Methods*

Lectures, exercises, online learning, project

### *Assessment*

Active participation, exercises, orally presented final report, and examination

### *Further Information*

One credit for online learning

## **Information technology, 3 op KI15AORI003 (study unit)**

### *Lecturers*

Hannu Palomäki, MA

### *Objectives*

Students will be competent in independently and safely using information technology and commonly used office software in their studies. They will understand the significance of IT in their profession, and they have command of e-mail, the Moodle learning environment, PowerPoint and Word. Students will be capable of writing academic texts similar to the thesis.

### *Content*

- Using computers, equipment related to computers, and information networks at Seinäjoki UAS
- E-mails
- Using the Moodle learning environment
- PowerPoint presentations
- Word processing
- Writing texts according to Seinäjoki UAS's Guidelines for Writing Academic Texts

### *Literature / Study Material*

- Hyppönen, Ojala, Joutsen. 2007. Tietokoneen käyttötaito 1 Office 2007-ohjelmille. Docendo
- Lammi. 2007. Tietokoneen käyttötaito 2 Office 2007-ohjelmille. Docendo
- Other material as indicated at the beginning of the course

### *Learning Methods*

Lectures, exercises, assignments, online learning

### *Assessment*

Active participation and assignments

## **Finnish language and Communication, 4 op KI15AKIE001 (study unit)**

### *Lecturers*

Sirkka Nieminen, MA

*Objectives*

Students will be competent in communicating appropriately and purposefully in various communicative situations in the working world. They will be considerate of the receiver, and be aware of the situation and the demands of the profession. They will be able to communicate in an organised, clear and convincing manner. Students will also be able to evaluate their own communicative skills.

*Content*

- Written texts, e.g. various documents needed at work
- Oral texts, e.g. speeches, demonstrations; communication in a group, meetings
- Stylistics, language maintenance
- Purposeful development of communication skills

*Literature / Study Material*

- Kortetjärvi–Nurmi, S., Kuronen, M.–L. & Ollikainen, M. 2008. Yrityksen viestintä. 3rd edition. Helsinki: Edita.
- Kallio, H. 2006. Point: Tehoa ja taitoa työelämän esiintymistilanteisiin.
- Kielikello 1/2007 (so-called 'Ruokakello')
- Online and other material

*Learning Methods*

Lectures, assignments and independent study

*Assessment*

- Written and oral assignments
- Examination

*Languages of Instruction*

Finnish

*Further Information*

Two credits for online learning

## **Swedish, 4 op KI15AKIE002 (study unit)**

*Lecturers*

Erja Heikkilä, MA

*Objectives*

Students will understand the importance of internationality and different cultures in their field and its development. They will also understand the significance of the Swedish language in the field of hospitality. Students will have command of essential hospitality terminology and both written and oral Swedish language skills for various contexts related to studies, work and free time.

*Content*

- Education and career
- Applying for work, CV
- Basic terminology in the hospitality field (nutrition, tourism)
- Customer service situations in different service environments
- Cultural studies (cuisine, etc.)

*Literature / Study Material*

- Jokisalo, T., Minni, R. 2006. Flexservice, Svenska för högskolor. Helsinki, Otava.
- Other material to be announced at the beginning of the course
- Online material (Moodle, etc.)

*Learning Methods*

- Oral and written assignments
- Exercises in class and in kitchen/restaurant environments
- Online studies

*Assessment*

Oral and written assignments and tests, active participation

*Languages of Instruction*  
Finnish and Swedish

*Further Information*  
One credit for online studies

## **English, 4 op KI15AKIE003 (study unit)**

*Lecturers*  
Erja Heikkilä, MA

*Objectives*  
Students will understand the importance of internationality and different cultures in their field and its development. They will also understand the significance of the English language in the field of hospitality. Students will have command of essential hospitality terminology and both written and oral English language skills for various contexts related to studies, work and free time.

*Content*

- Education and career
- Applying for work, CV
- Basic terminology in the hospitality field (nutrition, tourism)
- Customer service situations in different service environments
- Cultural studies (cuisine, etc.)

*Literature / Study Material*

- Koponen, P., Scheinin, M., Yli-Penttilä, K. 2008. Expert, English for Food Professionals. Keuruu: Otava.
- Salo, R., Myles, J. 2007. Suitcase. Helsinki: Wsoy.
- Other material to be announced at the beginning of the course
- Online material (Moodle, etc.)

*Learning Methods*

- Oral and written assignments
- Exercises in class and in kitchen/restaurant environments
- Online studies

*Assessment*  
Written and oral assignments and tests, active participation

*Languages of Instruction*  
Finnish and English

*Further Information*  
One credit for online studies

## **New language, 2 op KI15AKIE004 (study unit)**

*Objectives*  
The objectives for this course are determined according to the levels of skill the students have; if necessary, studies will begin at the beginner level. Upon completion of the course, students will possess basic knowledge of the language in question, i.e. they will be able to use essential vocabulary and structures in oral and written communication situations.

*Content*

- Me, my family and my profession
- My place of residence
- Situations in the shops, restaurants and when travelling
- Food
- Cuisine in my own country and province

*Literature / Study Material*  
To be announced.



*Learning Methods*

Lectures, written and oral assignments

*Assessment*

Assignment and exam

*Further Information*

Possible options according to what is on offer:

- Spanish
- Italian
- French
- German
- English
- Swedish

## **Basics of service production, 18 op KI15BTUOTPE (study entity)**

Students will produce catering services in various service environments to gain command of the processes involved in production and services in the field of food management. Each period has its own theme in which students deepen their knowledge of the theory of service, communication and methods. The themes for the first year are: Period 1: Safety (hygiene, cleanliness and self-monitoring, basic knowledge of special diets, occupational safety, basics in customer service the skills in communication and methods associated with it) Period 2: Health (basics in nutrition and special diets, planning menus, knowledge of food stuffs, and skills in communication and methods) Period 3: Economics (basics in business and cost calculations, planning production, and skills in communication and methods) Period 4: Aesthetics (decoration, setting tables, display, serving, atmosphere) General teaching and studying of the various themes involves all students taking the course as a whole, while the practical work in the various learning environments involves small-group work. The module comprises the following courses:

- Safety in Catering
- Health in Catering
- Economics in Catering
- Aesthetics in Catering

## **Safety in food production, 6 op KI15BRPT014 (study unit)**

*Lecturers*

Seija Pihlajaviita, MSc, Paula Juurakko, BBA (Hos. Man.), Hillevi Eromäki, MSc

*Objectives*

Students will understand the prerequisites for a healthy, safe and progressive working environment. They will take responsibility for ensuring their ability to work and actively develop their ways of working and functionality in the work community. Students will have command of the principles of food hygiene and in-house control and apply them to their work. They will be familiar with good hygienic practices and take responsibility for food preservation, cleaning and sanitation in professional kitchens. Students will be competent in sorting waste. They will also understand the needs for various special diets and the safety issues associated with them.

*Content*

- Occupational safety
- Risk assessment
- Basics of ergonomics
- In-house control in professional kitchens
- Various groups of microbes, their living conditions and how to control their growth
- Food pathogens
- Materials used in food processing facilities
- Hygiene requirements and the related detergents and methods used in cleaning
- Sorting waste and waste treatment
- Sustainable use of energy, water and raw materials
- Special diets and safety issues

*Literature / Study Material*

- Syyrakki S. 2008. Hygieniaopas. Elintarvikehygienian perusteet. Elintarvike ja terveys.
- Aro J. & al. 2005. Puhtaus on puoli ruokaa. Suomen siivousteknisten liiton julkaisu 1:18. AO-paino Mikkeli.
- Online material.

- Learning material is revised annually.

#### *Learning Methods*

Lectures, exercises and assignments. Part of the assignments are integrated into the Management of Food Services course.

#### *Assessment*

Active participation in lectures, assignments, exam

#### *Languages of Instruction*

Finnish

#### *Further Information*

One credit for online learning

### **Health aspects in food production, 6 op KI15BRPT015 (study unit)**

#### *Lecturers*

Hillevi Eromäki, MSc and Eija Putula–Hautala, MSc

#### *Objectives*

Students will utilise their knowledge of nutrition and the relationship between food and health when choosing ingredients and compiling various types of menus. They will be familiar with the Finnish nutrition recommendations and apply them in practice. Students will understand food as the origin of nutrients and consider chemical and physical phenomena in food preparation.

#### *Content*

- Food as the origin of nutrients and as a factor in good health
- Nutritional recommendations
- Using food and the nutrition of people in various age groups
- Dietetics
- Special qualities of various food product groups
- Chemical and physical phenomena in food preparation

#### *Literature / Study Material*

- Peltosaari, L., Raukola, H. ja Partanen, R. Ravitsemustieto. Otava. 2002.
- Parkkinen, K. ja Serti, P. Avain ravitsemukseen. 2006
- Suomalaiset ravitsemussuositukset – ravinto ja liikunta tasapainoon. VRNK 2005
- Parkkinen, K. ja Rautavirta, K. 2003. Utelias kokki. Elintarviketietoa ruoanvalmistajalle. Restamark Oy. Vantaa.
- Parkkinen, K. ja Rautavirta, K. 2006. Aspartaamista öljyhappoon. Elintarvike- ja ravitsemustiedon sanasto. Restamark Oy. Vantaa.
- Lampiselkä, J. ym. Kemisti 1. Ihmisen ja elinympäristön kemia. WSOY. (uusin painos)
- Other material to be announced during the course.

#### *Learning Methods*

Lecture, group work and assignments

#### *Assessment*

Active participation, assignments, written examinations

### **Economy in food production, 3 op KI15BRPT003 (study unit)**

#### *Lecturers*

Seija Pihlajaviita, MSc

#### *Objectives*

Students will understand the basic logic behind the hospitality management business. They will be familiar with various business ideas in hospitality management as well as the connection between corporate investments and products. Students will recognize single input and corporate functions as a part of the national economy and sustainable development. They will be competent in working in an economic manner in the various long-term phases of hospitality production, such as raw material acquisition, food production, delivering and serving. Students will have command of basic mathematical calculations needed in their professional field, i.e. modifications, VAT, and loss. They will also be competent in using cash registers, writing receipts and estimating the effects of variation on total costs and outcome.

### *Content*

- Entrepreneurship in society
- Generating business ideas
- Business processes and environments
- Calculating percentages, modifications, loss of weight
- Gross margin, VAT, pricing products and services

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, exercises, assignments

### *Assessment*

Assignments and written exams

### *Languages of Instruction*

Finnish

## **Peak experiences in food production, 3 op KI15BRPT004 (study unit)**

### *Lecturers*

Katja Kulmala, BBA (Hos. Man.) and Tuija Pitkäkoski, LSc (Econ.)

### *Objectives*

Students will understand tourism and its features as a form of business and livelihood. They will learn the significance of experience and hospitality as factors of quality in the fields of catering and tourism. Students will also be competent in customer relations and have command of the basics in customer service.

### *Content*

- Tourism as a form of business and livelihood
- Aesthetics and customer experiences in catering
- Food as part of tourist services
- Basics in customer service

### *Literature / Study Material*

Literature pertaining to service culture, to be announced at the beginning of the course.

### *Learning Methods*

Lectures, practical assignments

### *Assessment*

Assignments and exam

### *Languages of Instruction*

Finnish

## **Service production, 15 op KI15BTUOTTA (study entity)**

The Service Production Module comprises practical work and the theoretical foundation and assignments that support it. The practical work takes place in four different service and learning environments. Students are divided into four groups and each group at a time will work in one of the service environments for one period after they change to another service environment. In this way, each student and group of students will work in all of the service environments during their first and second years of study. Students will apply the theory related to each period to the given learning environment. In the third year of their studies, students will choose one service environment as an area of development. Students will be competent in producing catering and customer services in the service environment according to the environment's service concept, and they will become familiar with the service environment's production and service processes. Students will apply their knowledge of food service safety, health, economics and aesthetics to the service environment. The Service Production Module also comprises basic studies in information technology. Students will understand the significance of IT in their professional field and know how to use it independently in their studies. They will be familiar with the more common IT devices, e-mail, Moodle, and the online learning environment. Students will have command of word processing with Microsoft Word and know how to write reports according to the conventions stated in the Instructions for Writing a Thesis. Students will also have command of PowerPoint. Studies in IT may take place in any of the four learning environments and it will be integrated into the assignments given therein. The literature and study

material used in the IT studies will be announced during the studies. **SERVICE AND LEARNING ENVIRONMENTS**

**Staff Restaurant Services** Staff Restaurant Services provides students with a comprehensive understanding of the food production and service processes that take place in a professional kitchen. Students will work in the service and learning environments according to the principles of the service systems and culture and productive business operations in staff restaurants. Students will produce, plan and develop safe, healthy, economic and aesthetic services and products according to the business idea of a staff restaurant utilising various technologies. Students will learn how to plan meals and menus and the importance of standard recipes as part of quality operations. The intuitional, nutritional and hygienic quality, as well as the quality of customer service are emphasised in the production, planning and development of services. **Restaurant Services** Restaurant Services provides students with a comprehensive understanding of the processes involved in food production and services in a restaurant. Students will work in the service and learning environments according to the principles of the service systems and culture and productive business operations in staff restaurants. Students will produce, plan and develop safe, healthy, economic and aesthetic services and products according to the business idea of a staff restaurant utilising various technologies. Students will learn how to plan meals and menus and the importance of standard recipes as part of quality operations. Students will gain competence in waiting on tables, customer service and serving alcoholic beverages. The intuitional, nutritional and hygienic quality, as well as the quality of customer service are emphasised in the production, planning and development of services. **Café and À la Carte Restaurant Services** Café and À la Carte Restaurant Services provides students with a comprehensive understanding of the production and service processes involved in cafés and à la carte restaurants. Students will work in the service and learning environments according to the principles of the service systems and culture and productive business operations in cafés and à la carte restaurants. Students will gain competence in waiting on tables, customer service and serving alcoholic beverages. Students will produce, plan and develop quality café and à la carte restaurant services according to the business idea of the operations environment and based on an agreed programme or theme. They will learn the principles of planning a meal and menu based on a certain theme. Additionally, students will gain competence in developing a comprehensive food service that arouses the customers' senses and provides them with a pleasant experience. The experiential aspects of food services, which are shaped by the meal, interaction with the customer, programme and atmosphere, are emphasised in the production, planning and development of services. **Food Product and Shop Services** Food Product and Shop Services provides students with a comprehensive understanding of the production and service processes of packaged food products. Students will work in the service and learning environments according to the principles of the service systems and culture and productive business operations. They will produce, plan, and develop quality food product and shop services according to a business idea utilising various technologies. Students will learn about various food stuffs, methods for preparing food, statutory packaging markings, and the significance of standard recipes as part of quality operations. The intuitional, nutritional and hygienic quality, as well as the quality of customer service are emphasised in the production, planning and development of food services.

## **Service production, 15 op KI15BRPT016 (study unit)**

### *Lecturers*

Juurakko Paula, BBA (Hos. Man.), Kulmala Katja, BBA (Hos. Man.) and Nieminen Kirta, BBA (Hos. Man.)

### *Objectives*

Students will be competent in producing catering and customer services in accordance with the service concept of café and à la carte restaurant services. They will learn about the production and service process of café and à la carte restaurant services. They will be capable of applying their knowledge of the safety, healthiness, cost-effectiveness and experientiality of catering services to café and à la carte restaurant services.

### *Content*

- Production of café and à la carte restaurant services
- Production and service process of café and à la carte restaurant services
- Hygiene and self-supervision
- Occupational safety and ergonomics
- Cost-effectiveness and pricing of café and à la carte restaurant services
- Jamix food programme

### *Literature / Study Material*

- Lampi R., Laurila A. & Pekkala M–L. 2009. Ruokapalvelut työnä. Helsinki: WSOY.
- Lehtinen M., Peltonen H. & Talvinen P. 2007. Ruoanvalmistuksen käsikirja. Helsinki: WSOY.
- Mauno S. & Lipre E. 2005. Älykäs kokki ammattikeittiössä. Helsinki: WSOY.
- Mauno, S. & Lipre E. 2008. Taitava kokki ammattikeittiössä. Helsinki: WSOY.
- Määttä S., Nuuttila J. & Saranpää T. 2008. Juhlalpalvelu, suunnittele ja toteuta. Helsinki: WSOY.
- Taskinen T. 2007. Ammattikeittiön ruokatuotantoprosessit. Mikkeli: Mikkelin ammattikorkeakoulun tutkimuksia ja raportteja.

### *Learning Methods*

- Production of café and à la carte restaurant services in a service and learning environment

- Report summarising knowledge obtained in Introduction to the Production of Services and Production of Services

#### *Assessment*

- Practical work and active participation
- Self-assessment
- Group assessment
- Customer assessment
- Exercises
- Reports

### **Basics in services management, 22 op KI15BJOHTPE (study entity)**

Emphasis during students' second year of studies in the Service Production Module is placed on service management and working as a manager. The Service Management Module comprises various themes and studies in theory, which students apply to practical training situations in various service environments.

- Marketing in the Service Sector
- Personnel Management in the Service Sector
- Financial Administration
- Managing the Food Service Quality Chain
- Key Issues in Nutrition
- Jurisprudence

### **Marketing, 4 op KI15BRPJ001 (study unit)**

#### *Lecturers*

Elina Ojala–Wahlroos, MSc (Econ.)

#### *Objectives*

Students will become familiar with the significance of customer service and planned marketing in a service–providing company. They will learn the basic concepts of marketing and the significance to an organisation. Additionally, students will be introduced to the job of a consultant for food products through various projects.

#### *Content*

- Significance of marketing in the service sector
- Basic concepts of marketing
- Significance of planning and compilation of a marketing plan
- Participation in a consumer–based online project where students practise their skills in the promotion of sales

#### *Literature / Study Material*

- Isoviita, A. & Lahtinen, J. 2004. Markkinoinnin perusteet. Tampere: Avaintulos.
- Other material as indicated during the course.

#### *Learning Methods*

Lectures, marketing plan, online learning, examination, project

#### *Assessment*

Active participation, marketing plan, examination, project

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Two credits for online studies
- Two credits for R&D

### **Personnel Administration, 4 op KI15BRPJ002 (study unit)**

#### *Lecturers*

Elina Ojala–Wahlroos, MSc (Econ.) and Marja–Liisa Salonen, PhD

*Objectives*

Students will be able to analyse management and understand various concepts and models and apply this knowledge to the work in the service sector. They will be familiar with the entire sphere of duties of a supervisor involved and the significance of leadership in productive operations. Students will learn the basics of management and leadership and be familiar with the various areas of personnel management and legislation.

*Content*

- Basic concepts associated with leadership and organisations
- Human resources management
- Employment Contracts Act

*Literature / Study Material*

- Laurent B. 2006. Päivittäisjohtaminen matkailu- ja ravintola-alalla. Helsinki: WSOY Oppimateriaalit Oy.
- Hyppänen R. 2007. Esimiesjohtaminen liiketoiminnan menestystekijänä. Helsinki: Edita.
- Kainunen M. Työoikeus perusteineen. Latest edition.
- Other material as indicated during the course.

*Learning Methods*

Lectures, book examination, exercises, online learning

*Assessment*

Exercises and examinations

*Languages of Instruction*

Finnish

*Further Information*

One credit for online studies

## **Financial and operational planning, 4 op KI15BRPJ003 (study unit)**

*Lecturers*

Seija Pihlajaviita, MSc, Raija Kangassalo, MA

*Objectives*

Students will be able to interpret financial reports. They will know ways to develop business activities to be economically profitable. Students will be able to prepare performance and financial budgets. They will be familiar with spreadsheet computation software and know how to utilise spreadsheets in their professional domain.

*Content*

- External accounting, profit and loss account, balance sheet
- Internal accounting, covering notes, pricing, financial planning
- Financial management in the private and public sectors
- Basics of using spreadsheet computation (Excel 2007)
- Utilizing spreadsheets in managing finances and one's own field

*Literature / Study Material*

- Selander, K. & Valli, V. 2007. Hinnointelu ja kannattavuus matkailu- ja ravitsemisalalla. WSOY Oppimateriaalit Oy. Helsinki.
- Hyppönen, Ojala, Joutsen. 2007. Tietokoneen käyttötaito 1 Office 2007-ohjelmille. Docendo.
- Lammi. 2007. Tietokoneen käyttötaito 2 Office 2007-ohjelmille. Docendo.
- Other material to be announced during the course.

*Learning Methods*

Lectures, exercises, assignments, online study (1 credit). Part of the assignments are integrated into the Management of Food Services course.

*Assessment*

Active participation, assignments, written exam

*Prerequisites*

Economics of Food Services

*Languages of Instruction*  
Finnish

*Further Information*  
One credit for online studies

## **Food Service Quality Management, 4 op KI15BRPJ004 (study unit)**

*Lecturers*  
Pihlajaviita Seija, MSc and Eija Putula–Hautala, MSc

*Objectives*  
Students will be familiar with the food supply chain. They will also be competent in planning and developing the hygiene and in-house control of professional kitchens according to the legislation. Students will understand the concepts of ecologically, economically and socially sustainable development in theory and in practice as regards their work and the food supply. They will also learn responsibility in developing the purchasing activities of professional kitchens. Also, as a consumer, they will learn to choose products and services that coincide with sustainable development.

### *Content*

- Quality of the food supply chain
- Verification and control of quality
- Food hygiene legislation
- In-house control
- Various food systems
- Environmental impacts of food production, life cycle of products and eco-effectivity
- Responsible purchases based on sustainable development

### *Literature / Study Material*

- Hokkanen, S. & Strömberg, O. 2006. Laatuun johtaminen. Sho Business Development Oy.
- Heikkilä, P.M. Ekokeittiön valinnat. Ruokapalvelut ympäristöä säästäen, Porvoo: WSOY.
- Legislation
- Online material
- Other material to be announced at the beginning of the course

### *Learning Methods*

- Lectures, field trips, assignments (e.g. compilation of an in-house control plan)
- Part of the assignments are integrated into the Management of Food Services course.

*Assessment*  
Active participation in lectures, assignments, and written exams

*Prerequisites*  
Food Service Safety

*Languages of Instruction*  
Finnish

*Further Information*  
Two credits for online studies

## **Advanced nutrition studies, 4 op KI15BRPJ005 (study unit)**

*Lecturers*  
Hillevi Eromäki, MSc, Kaija Nissinen, LSc and Eija Putula–Hautala, MSc

*Objectives*  
Students will understand the structures of nutrients and the essential reactions in the body associated with metabolism. They will be familiar with the anatomy and physiology related to food consumption as well as the culture, history and the social and ideological backgrounds of food consumption, and they will use this knowledge in planning meals and menus. Students will also understand the significance of diet in the prevention and treatment of illness, and they will be aware of the recommendations for nutrition and diet among various age groups. They will be able to prepare meals according to various special diets, be familiar with the special food stuffs available in the market and be able to follow the development of the field and apply the latest information to their work.

### *Content*

- Energy nutrients, vitamins, minerals, structures of water and metabolic reactions in the body.
- Digestive system, phases of digestion, absorption of nutrients and regulation of the metabolism
- Factors affecting food consumption, food as a cultural and social phenomenon
- Digestive/ metabolic routes of the energy producing nutrients, vitamins and minerals
- Nutritional goals on the national level, recommendations and programmes
- Special diets
- Special diet products and using them to prepare meals

### *Literature / Study Material*

- Häikiö I. et al. 2002. KEFY. WSOY.
- Winter & Winter. Ihminen ja molekyyli. WSOY.
- Peltosaari L., Raukonen H. & Partanen R. 2002. Ravitsemustieto. Otava.
- Nienstedt W., Hänninen O. & Arstila A. Ihmisen fysiologia ja anatomia. (Assigned parts)
- Aro, A., Mutanen, M. ja Uusitupa, M. (eds.). 2005. Ravitsemustiede. Duodecim.
- Latest nutrition recommendations, nutrition reports, current articles and studies.
- Martikainen T. Ravitsemus ja ruokavaliot. RTY. Latest edition.
- Other material as indicated during the course.

### *Learning Methods*

Lectures, assignments, group work, written assignments and online study.

### *Assessment*

Active participation, assignments, group work, written assignments and examinations.

### *Languages of Instruction*

Finnish

### *Further Information*

One credit for online studies

## **Basics of law, 2 op KI15BRPJ010 (study unit)**

### *Lecturers*

Marja Salonen, PhD

### *Objectives*

Students will gain a basic understanding of the Finnish legal system, the more significant legal concepts, how contracts are created, and the new Act on Public Contracts. Upon completion of the course, students will be competent in solving simple legal issues and in this way will have developed an analytical way of thinking. Additionally, they will be prepared to act as one party in a contract, be competent in compiling contracts, which are not burdened by problems of interpretation.

### *Content*

- Finnish legal system
- Jurisprudent concepts
- Judicial Act
- Sale of Goods Act
- Act on Public Contracts

### *Literature / Study Material*

- Hoppu–Hoppu: Kauppa– ja varallisuus oikeuden pääpiirteet, 2007 edition

### *Learning Methods*

Lectures, case studies

### *Assessment*

Written examination

## **Service Management, 12 op KI15BJOHTAM (study entity)**



The aim of the Services Management Module is to provide students with the competency to manage food and customer services according to the service concepts of the service environment. Students will have command of the production and service processes in the service environment. They will understand the concept of operative management and test their skills in management, problem solving, organisation, as well as their ability to withstand pressure, in the service environment. They will also understand the significance of planning work shifts and purchasing as part of a successful production and service processes. Students will be conscious of the issues concerning safety, health, economics and aesthetics in managing food services. They will learn about the marketing of a service concept in theory and in practice. The module will be carried out in various service environments, such as:

- Managing Staff Restaurant Services (Opiskelijaravintola Riseti)
- Managing Restaurant Services (Ravintola Kaarin)
- Managing Café and À la Carte Restaurant Services (Sööpärin tilauspalvelut)
- Managing Food Product and Shop Services (Myymälä Sortti)

## **Service Management, 12 op KI15BRPJ011 (study unit)**

### *Lecturers*

- Paula Juurakko, BBA (Hos. Man.)
- Katja Kulmala, BBA (Hos. Man.)
- Kirta Nieminen, BBA (Hos. Man.)
- Elina Ojala–Wahlroos, MSc (Econ.)

### *Objectives*

Students will be competent in managing food and customer services in personnel restaurants, restaurants, shops and banquet restaurants open upon request. They will have command of various production and service processes. They will understand the concept of operational management and test their skills in service, management, problem solving, organisation and stress management in a service and learning environment. Students will be familiar with how to plan employees' work shifts and the significance of purchasing as part of a profitable production and service process. They will be competent in acknowledging issues concerning safety, health, economics and experience when managing services. Students have the opportunity to initiate marketing communication suitable for the service concepts.

### *Content*

- Designing and managing services
- Planning work shifts
- Organisational behaviour
- Marketing communication
- Jamix recipe programme

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Managing services in a service and learning environment
- Report concerning the knowledge and skills learned in the Foundations of Service Management and Service Management courses.
- Online study

### *Assessment*

- Practical work and leadership
- Active participation
- Self-evaluation
- Group evaluation
- Customer feedback
- Assignments
- Reports

## **Service Business Development, 25 op KI15CLIKKKE (study entity)**

The Development of Services Module is offered during students' second- and third-year studies, and it involves the planning of a service concept and the theory associated with it. Students will gain knowledge of how to plan a service concept of their choice and to introduce it. They will expand their knowledge in areas such as health, safety or economics as it pertains to planning. They may specialise in business planning, product development, nutrition, communication or

marketing, or in designing facilities or planning production. Courses in the module include:

- Research and Development
- Developing a Service Concept
- Developing Aesthetics and a Business Image
- Developing Nutrition
- Developing Quality and Safety

## **Research and development, 5 op KI15CRPK001 (study unit)**

### *Lecturers*

- Kaija Nissinen, LSc
- Sirpa Nygård, MSc
- Sirkka Nieminen, MA
- Anu Latva-Reinikka, BSc

### *Objectives*

Students will possess skills in development and research. They shall be familiar with a variety of research methods and concepts, scientific principles and be able to implement them in their own work. Students will understand the principles behind scientific thought and have command of basic research concepts. They will be familiar with various research methods and approaches and know how to apply them. They will also be familiar with the conventions for writing a thesis and apply those conventions in their own texts. Upon completion of the course, students will understand the entire process of information acquisition for various information needs, have command of basic techniques for seeking information, and they will know how to critically evaluate and use the information they find. Students will know the conventions for writing a research report, and they will possess readiness needed in carrying out their own thesis writing process.

### *Content*

- Basics in research and development work
- Methodological and theoretical bases
- Approaches to research and basic methods for obtaining information
- Databases in the field of nutrition and how to use them
- Online information searches
- Evaluation and use of information
- Thesis writing process
- Structure, style and language in a research report, revision, sources and citation

### *Literature / Study Material*

- Seinäjoki UAS's Instructions for Writing a Thesis
- Hirsjärvi S., Remes P. & Sajavaara P. 2005. Tutki ja kirjoita. 11th edition. Helsinki: Tammi.
- Vilkkä H. 2005. Tutki ja kehitä.
- Vilkkä H. & Airaksinen T. 2004 Toiminnallinen opinnäytetyö.
- Online and other material provided by the lecturer

### *Learning Methods*

Lectures and assignments

### *Assessment*

- Information acquisition: Evaluation based on assignments (pass/fail)
- Research communication: Research project report
- Methodology: Exams, topic analysis and research plan

### *Languages of Instruction*

Finnish

### *Further Information*

Two credits for online studies

## **Development of service concept, 5 op KI15CRPK002 (study unit)**

### *Lecturers*

Tuija Pitkäkoski, LSc (Econ.) and Kirta Nieminen, BBA (Hos. Man.)

*Objectives*

Students will understand the meaning of holistic marketing communication as additional marketing value for a company. They will also understand the principles of producing holistic marketing communication through coherent messages and identifiable visual expressions. Students will become familiar with visual and aesthetical expression through practical exercises, and they will understand the communicative effects of different materials, colours and displays. Students will master the basics in designing spaces, buildings and interiors and understand the principles of development according to the holistic company image.

*Content*

- Visual and aesthetic character in food services
- Development of controlled company image
- Space lay-outs

*Literature / Study Material*

- Lecturer's material
- Other material to be announced at the beginning of the course

*Learning Methods*

Lectures, exercises, and assignments

*Assessment*

Exercises and assignments

*Languages of Instruction*

Finnish

## **Development of esthetic and business image, 5 op KI15CRPK003 (study unit)**

*Lecturers*

Tuija Pitkääkoski, LSc and Kirta Nieminen, BBA (Hos. Man.)

*Objectives*

Students will understand the significance of holistic marketing communication as provider of additional value in marketing and competition. Students will know how to create a holistic company image through harmonious communication and identifiable visual expression. Through practical exercises, students learn about visual and esthetic expression and understand how various materials, colours and settings communicate with and affect customers. Students will also understand the principals of creating a holistic company image according to set goals.

*Content*

- Aesthetic character and visual impression in food services
- Developing a holistic company image
- Planning the lay-out of premises

*Literature / Study Material*

- Lecturers' handouts
- Other material to be announced at the beginning of the course

*Learning Methods*

Lectures, exercises and assignments

*Assessment*

Assignments and exercises

## **Development of nutritional effect, 5 op KI15CRPK004 (study unit)**

*Lecturers*

Hillevi Eromäki, MSc, Kaija Nissinen, LSc and Eija Putula-Hautala, MSc

*Objectives*

Students will be competent in developing health-promoting services with the awareness of safety, health and economics in that planning. They will utilise the latest research and methods in their work as a nutritionist.

### *Content*

- Current issues in nutrition research and methods
- Familiarisation with and utilisation of field-related literature
- Project: improving nutritional quality and nutrition education

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, independent development project

### *Assessment*

Active participation, book exam, and project work

### *Further Information*

Four credits for R&D

## **Development of food and menus, 5 op KI15CRPK005 (study unit)**

### *Lecturers*

Kirta Nieminen, BBA (Hos. Man.) and Hillevi Eromäki, MSc

### *Objectives*

Students will create high-quality and customer-oriented menus. They will be aware of the food production process at the premises when planning. Students will be competent in creating menus from an ecological, economical, nutritional, cultural and social point of view. They will also be familiar with the chemical reactions and sensory evaluation test methods of foodstuffs and food production.

### *Content*

- Analysis of the current situation in the premises
- Menu planning based on the food production process at the premises
- Calculations of nutritional values
- Cost calculations
- Experimental cooking
- Methods of intuitive evaluation

### *Literature / Study Material*

- Parkkinen K. & Rautavirta K. 2007. Utelias kokki. Elintarviketietoa ruoanvalmistajalle. Helsinki: Restamark Oy.
- Tuorila H., Parkkinen K. & Tolonen K. 2008. Aistit ammattikäyttöön. Helsinki: WSOY.
- Tuorila H. & Hellemann U. 1999. Elintarvikkeet aistien puntarissa. Helsinki: Yliopistopaino.
- Latest nutritional recommendations
- Other material as indicated during the course

### *Learning Methods*

Creating a menu based on the needs in the working world

### *Assessment*

Active participation, book exam, development project

### *Languages of Instruction*

Finnish

### *Further Information*

Three credits for R&D

## **Development of quality and safety, 5 op KI15CRPK006 (study unit)**

### *Lecturers*

- Seija Pihlajaviita, MSc
- Kaija Nissinen, LSc
- Eija Putula-Hautala, MSc

- Liisa Nuotio, MSc

### *Objectives*

Students will be familiar with the HACCP system as part of in-house control and in-house control as part of quality management. They will be competent in developing hygiene and cleaning as methods for improving quality. Students will be aware the more common toxicological risks of food and how to avoid them. They will be prepared to handle crises in the food supply chain.

### *Content*

- HACCP system
- Quality control systems for food services and the production of food stuffs
- Problems and solutions for production hygiene
- Detergents and disinfectants, service value analyses
- Toxicity of food substances
- Harmful compounds found naturally in food stuffs and those that form during food preparation
- Maintenance support in Finland, preparedness of professional kitchens in the public sector

### *Literature / Study Material*

- Korkeala, H. (ed.). 2007. Elintarvikehygieniä, ympäristöhygieniä ja elintarvike- ja ympäristötoksikologia. WSOY Oppimateriaalit Oy. (Assigned parts)
- Online material

### *Learning Methods*

Lectures, assignments and online study

### *Assessment*

Active participation, assignments, book exam

### *Prerequisites*

Quality Management of the Food Supply Chain

### *Languages of Instruction*

Finnish

### *Further Information*

- Two credits for online studies
- One credit for R&D

## **Projects, 23 op KI15CPROJOP (study entity)**

Project Studies involve various current and/or typical projects in the field of nutrition. A typical project is one that has been commissioned by a body/organisation in the working world, usually a single development project, but some of the projects are repeated on a regular basis. The projects vary in quality, duration and topic. The roles of the students and the supervisors in the projects may also vary. Students from several classes may be involved in the same project and therefore the roles of the students from these different classes may vary. Students will practise various project duties, such as project manager and project secretary, during their studies. In some situations, students may take part in projects of their interest and also become part of a project group as the specialist in nutrition or financial administrator. Students' independence and responsibility in managing the project grow as their studies progress. The amount of credits students acquire in the projects may vary from one student to the next depending on the role of the student in the project in question. Students will gain experience in project planning, implementation and reporting. They may concentrate areas of interest in the project, such as nutrition, economy, personnel management, etc. The theme of the project is determined by the current situation and the interest of students. The project work involves not only participation in various occasions, but also independently obtaining information and learning. Examples of projects include: adventure projects, nutrition projects, projects for production planning and development projects, aesthetics projects, fair and exhibition projects, quality development projects, training and consultation projects, recipe development projects, business planning and development projects, statistical research projects, and personnel management projects, etc. Compulsory project studies

- Adventure events
- Business planning and development project
- Fair project
- Research project
- Quality development project

Optional projects

- Nutrition project
- Project for developing a food project
- Other current project
- Production of Food Experience

## **Peak experience event, 5 op KI15CPROJ01 (study unit)**

### *Lecturers*

Tuija Pitkäkoski, LSc (Econ.) and Kirta Nieminen, BBA (Hos. Man.)

### *Objectives*

Student will be familiar with the principles of producing experiences and be able to assess the production of experience from the customer's point of view. They will be competent in planning and organising experiential food events, taking into consideration resources, standards of quality, and various experience themes. They will also consider the perspectives associated with the food product, atmosphere, interaction with the customer and management.

### *Content*

- Experiential food
- Experiential space and atmosphere
- Experiential customer interaction
- Auxiliary programmes in an experiential event
- Planning and organizing an event

### *Literature / Study Material*

- Lecturer's material
- Other material as indicated at the beginning of the course

### *Learning Methods*

Planning and executing an experiential event

### *Assessment*

Self-assessment and supervisor's assessment in the practical execution of the project

### *Languages of Instruction*

Finnish

## **Business activities, 5 op KI15CPROJ02 (study unit)**

### *Lecturers*

Hanne Vuorenmaa, LSc , Seija Pihlajaviita, MSc

### *Objectives*

Students will be competent in planning, developing, implementing and reporting business concepts in tourism and catering. They will understand field-related terminology and be able to apply various methods of development in a project. Additionally, students will also know how to budget a planned project or a project already being carried out.

### *Content*

- Business concepts
- Methods of development in business
- Financial planning and financing

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Planning and executing development projects in business

### *Assessment*

Self-assessment and assessment by supervisors

### *Prerequisites*

Developing Service Concepts

## *Languages of Instruction* Finnish

### *Further Information*

- Five credits for R&D
- Two credits for online learning

## **Fair and exhibition, 6 op** **KI15CPROJ03 (study unit)**

### *Lecturers*

Kirta Nieminen, BBA (Hos. Man.), Tuija Pitkäkoski, LBSc and Sirkka Nieminen, MA

### *Objectives*

Students will understand the opportunities fairs and exhibitions offer to marketing and promotion. Students will be able to carry out the practical aspects of the three-phase process of fairs and exhibitions: planning, execution and follow-up. Students will also understand how to plan and construct a functional and visually attractive stand to fulfil marketing objectives and, in the long run, become an economically profitable investment.

### *Content*

- Marketing communication theory with special emphasis on fairs as a means of marketing
- Marketing communication is divided into three parts: communication before, during and after the fairs
- All means of marketing communication
- Practical planning and execution of a real fair

### *Literature / Study Material*

- Markkinointiviestintä: Vuokko Pirjo (WSOY), Menesty messuilla, Yrityksen opas
- Siukosaari, Anssi 2002. Yhteisöviestinnän opas.
- Keinonen Susa and Koponen Pirjo (Fintra)
- Online and other material

### *Learning Methods*

Lectures and projects

### *Assessment*

Project execution and the written assignments associated with it.

### *Further Information*

One credit for online studies

## **Research project, 5 op** **KI15CPROJ04 (study unit)**

### *Lecturers*

Kaija Nissinen, LSc, Raija Kangassalo, MA, Sirkka Nieminen, MA, other supervising teachers

### *Objectives*

Students will understand the principles of scientific thought and be able to implement them in their own work. They will be familiar with a variety of research methods and concepts, scientific principles and be able to utilise them to develop the work community. Students will have command of statistics and be able to evaluate and interpret statistical research. They will know how to carry out quantitative research, and describe and analyse data using the SPSS programme, and report their findings. Students will complement their knowledge of information retrieval and familiarise themselves with field-related sources of information. They will possess readiness to carry out thesis work based on statistics.

### *Content*

- Basics in statistical mathematics
- SPSS programme
- Doing statistical research (gathering data, describing and analysing)
- Writing a research report

### *Literature / Study Material*

- Heikkilä, Tarja, 2008. Tilastollinen tutkimus. Edita
- Vilkkä H. 2005. Tutki ja kehitä.

- Seinäjoki UAS's Instructions for Writing a Thesis
- Other material to be announced at the beginning of the course

#### *Learning Methods*

Lectures, exercises, project work

#### *Assessment*

The process and report of research project, self-assessment

#### *Languages of Instruction*

Finnish

#### *Further Information*

R&D credits: 5

### **Quality development, 5 op KI15CPROJ05 (study unit)**

#### *Lecturers*

Kaija Nissinen, LSc, Sirkka Nieminen, MA and other supervising teachers

#### *Objectives*

Students will be familiar with scientific principles and be able to implement them in their own work. They will be competent in applying various methods, concepts and scientific thinking to development, in recognising and analysing areas requiring development, and making written proposals pertaining to those needs. They will also know how to apply collaborative and scientific methods for developing the work community. Students will also complement their knowledge of information acquisition and familiarise themselves with field-related information sources. They will be competent in actively engaging in the thesis writing process.

#### *Content*

- Compilation of a development plan
- Implementation of a development project and reporting about it
- Structure, style and language of a project report, revision, sources and citation

#### *Literature / Study Material*

- Seinäjoki UAS's Instructions for Writing a Thesis
- Vilkkä H. & Airaksinen, T. 2004. Toiminnallinen opinnäytetyö
- Vilkkä H. 2005. Tutki ja kehitä
- Online material and other material as indicated by the teacher

#### *Learning Methods*

Lectures, assignments and project work

#### *Assessment*

Process and reporting on the development project, self-evaluation

#### *Languages of Instruction*

Finnish

#### *Further Information*

Five credits for R&D

### **Nutrition project, 5 op KI15CPROJ06 (study unit)**

#### *Lecturers*

Kaija Nissinen, LSc and Sirkka Nieminen, MSc

#### *Objectives*

Students will become familiar with the realm of the media with emphasis on the use of newspapers as a communication channel for nutritional issues, and they will be competent in writing about field-related topics in the media. Students will also be competent in planning and independently carrying out counseling and guidance about nutritional issues, and have command of a number of methods and material for teaching.

#### *Content*



- Planning and producing a newspaper article related to nutrition
- Planning and carrying out an educational project pertaining to nutrition

#### *Literature / Study Material*

- Kotilainen L. 2003. Parempi lehtijuttu. Helsinki: Infoviestintä.
- Mykkänen P. 1998. Yhteisölehti. Tekijän opas. Helsinki: Infoviestintä.
- Fogelholm (ed). 2003. Ratkaisuja ravitsemukseen. Ravitsemuskasvatus ja elämäntapa.
- Vertio. 2003. Terveystiedon edistäminen.
- Torkkola (ed.). 2002. Terveystiedon edistäminen.
- Wiio and Puska. 1993. Terveystiedon edistäminen.
- Additional material as indicated by the teacher.

#### *Assessment*

- Article to publish in the media
- Carrying out and reporting on an educational project pertaining to nutrition

#### *Further Information*

- One credit for online studies
- Two credits for R&D

### **Food management, 5 op KI15CPROJ07 (study unit)**

#### *Lecturers*

Kirta Nieminen, BBA (Hos. Man)

#### *Objectives*

Students will understand the product development process and productisation in theory. They will be competent in planning, carrying out and managing customer-oriented, cost-effective, nutritional and innovative food product development and productisation. Students will be aware of the factors involved in planning recipes, testing and standardising recipes. They will have command of food chemistry and sensory evaluation research methods in the food product development process.

#### *Content*

Product development and productisation in the working world

#### *Literature / Study Material*

- Tuorila, H. & Appeldyke, U. Elintarvikkeiden aistinvaraiset tutkimusmenetelmät. Helsinki: Yliopistopaino.
- Other material to be announced

#### *Assessment*

Process of a development project, reporting and self-evaluation

#### *Languages of Instruction*

Finnish

#### *Further Information*

Three credits for R&D

### **Some other current project, 5 op KI15CPROJ08 (study unit)**

#### *Lecturers*

Hanne Vuorenmaa, LSc and Kaija Nissinen, LSc

#### *Objectives*

Students will learn to plan, implement and report on topical projects. They may specialise in nutrition, economics, personnel management, etc., according to their interests. The themes of the projects are determined according to the needs of the working world, the current situation and students' own interests. Execution of a project, the literature required and basis for evaluation are determined for each project separately.

#### *Further Information*

Five credits for R&D

## **Production of Food Experience, 5 cr KI15CPROJ09 (study unit)**

### *Lecturers*

Tuija Pitkääkoski, LSc

### *Objectives*

Students will acquire insight to food, making meals and the holistic principals involved in creating food experiences. They will develop their knowledge of how to create a customer-oriented experience and understand the principals of creating holistic and harmonized impressions around food experiences.

### *Content*

The choice, processing and preparation of food and food service displays are discussed and assessed. Special focus is placed on cuisine and customer experiences. Students learn the balanced use of colour, composition and choice of materials that create a pleasant atmosphere. Students will complete exercises that promote their expertise in table settings and food displays.

### *Literature / Study Material*

Lecturers' handouts

### *Learning Methods*

Lectures, practical assignments

### *Assessment*

Practical assignments, written assignments

## **ELECTIVE STUDIES, 10 op VAVAL (study entity)**

Students are required to complete 10 credits worth of elective studies chosen either from those on offer at Seinäjoki University of Applied Sciences or other universities of applied sciences. Students complete their elective studies first and foremost in their second and third years of study. The head of degree programme must have the elective studies chosen elsewhere than in Seinäjoki UAS approved by the head of degree programme. If a student wishes to complete online UAS studies, (s)he must receive permission from the degree programme; otherwise (s)he takes them at his/her own expense. The same is true for other courses taken in other educational institutions. Students may choose elective courses at Seinäjoki UAS at <http://ops.seamk.fi>. The elective courses offered at the School of Food Management vary somewhat each year. Examples of elective courses on offer (not necessarily every year):

- Language courses (Spanish, Italian, French, English Conversation) (2 op)
- Family and Succession (2 op)
- Tutoring (2 op)
- First-aid (2op)
- Experience Production (2op)
- Challenges of Being a Manager (2op)
- Confectionery Baking (2op)
- Serving Alcoholic Beverages (2op)
- Practising for and participating in the RESTO competition

## **Basic training, 12 op KI15EPEHAR1 (study unit)**

### *Lecturers*

- Katja Kulmala, BBA (Hos. Man.) (training in Finland)
- Erja Heikkilä, MSc
- Kirta Nieminen, BBA (Hos. Man.) (international training)

### *Objectives*

Upon completion of the Basic Training, students will be developed in their professional skills in catering services. They will have a clear picture of the jobs, job descriptions and responsibilities in the catering business. Students will have participated in a diverse range of activities in food production while considering profitability, technology, safety and customer service. They will have adept communication skills, and they will be competent in evaluating their own progress and in developing as the member of a work community. Doing the practical training either completely or in part abroad is recommended.

### *Content*

Students are responsible for choosing their practical training place according to set goals. It may be a public or private organisation that offers meal services. Students will compile their own goals for the training and work according to those

goals. They will keep a journal of their learning progress and write up a report about their training, which contains the tasks they performed during their training.

#### *Learning Methods*

Practical work in food production according the policies and schedule of the catering business (including evenings and weekends), assignments associated with the work place, journal and self-evaluation

#### *Assessment*

Report and employer's assessment

#### *Prerequisites*

- Basics in Service Production
- Service Production

### **Specialised training, 18 op KI15EERHAR1 (study unit)**

#### *Lecturers*

- Eija Putula–Hautala, MSc (training in Finland)
- Erja Heikkilä, MA
- Kirta Nieminen, BBA (Hos. Man.) (international training)

#### *Objectives*

Upon completion of the practical training, students will possess an understanding of the duties in their chosen professional field and the future visions of the field. They will critically reflect upon their progress in the field and as a member of a work community. Doing the practical training either completely or in part abroad is recommended.

#### *Content*

- Choosing a place of training according to one's career plans
- Training plan (content and duties), approved by the training supervisor
- Duties: managing, consultation, marketing, product development, etc.
- Report about training

#### *Learning Methods*

Working as a member of work community, journal

#### *Assessment*

Report and employer's evaluation

#### *Prerequisites*

- Basic Training
- Service Management Training
- Service Management

### **Thesis, 15 op KI15FTU0001 (study unit)**

#### *Lecturers*

Kaija Nissinen, LSc, Hanne Vuorenmaa, LBus, Sirkka Nieminen, MA and other supervising teachers

#### *Objectives*

Students will be competent in planning and implementing a research or development project, which combines the essential body of knowledge gained in preceeding studies and the needs of the working world. Students will develop and provide indication of their readiness and apply their knowledge and skills in practical specialist tasks associated with their professional studies. They will be competent in compiling a research plan, presenting the plan, and preparing their work for the thesis seminar. Students sit a Maturity Test in which they indicate their knowledge of Finnish or Swedish and the contents of their thesis.

#### *Content*

- Planning, producing and reporting of a thesis
- Topic analysis
- Planning seminar
- Present the results in the thesis seminar and poster

- Maturity Test

#### *Literature / Study Material*

- SeAMK:n opinnäytetyöohjeisto
- Hirsjärvi, S., Remes, P. & Sajavaara, P. 2005. Tutki ja kirjoita. 11th edition. Helsinki: Tammi.
- Heikkilä, T. 2002. Tilastollinen tutkimus. Helsinki. Edita.
- Vilkkä, H. 2005. Tutki ja kehitä. Keuruu: Tammi.

#### *Learning Methods*

- Goal-oriented, organised and purposeful seeking and processing of information, utilising methods, practical implementation and reporting
- Nominated supervisor for each phase

#### *Assessment*

- Graded on a scale of 1–5
- Maturity Test after the final copy of the thesis has been submitted for grading (pass/fail)
- More detailed information about evaluation: Seinäjoki UAS's Instructions for Writing a Thesis and the school's Maturity Test Bulletin

#### *Prerequisites*

The thesis writing process begins at the end of students' studies.

# Degree Programme in Information Technology (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Engineering

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The working world and expertise demand that employees have advanced skills in information acquisition and processing, problem-solving, the ability to collaborate with others and to always be open to new learning situations, as well as the ability to combine various types of information and various disciplines with practical work. This means that students must understand what they are taught. For this reason, teaching in the Degree Programme in Information Technology emphasises the constructivist theory of learning where the students' active role and world of experience form a significant part of the education. It is the teacher's duty to facilitate learning and co-ordinate studies.

A variety of teaching methods are used in the programme to support students' professional development, readiness for the working world and professional expertise. Students work in small groups, listen to lectures by experts, work in the laboratory, visit various companies, do assignments, work in projects, and obtain practical experience in real work environments.

## PROFILE OF THE PROGRAMME

The Degree Programme in Information Technology produces IT and electronics engineers for the needs of the technology industry and IT service enterprises. IT engineers must have substantial knowledge and skills in mathematics and science. All IT engineers must also have command of software technology, electronics, embedded systems and telecommunications technology. IT engineers are also required to have command of field-related product development and production processes, as well as project activities. Students have the opportunity to acquire advanced knowledge of these areas in the programme's study modules. IT students also acquire the ability to work as entrepreneurs. Information technology and electronics are everywhere. Aeroplanes, automobiles, machines for agriculture and forestry, telephones and home appliances are all controlled by information technology. IT is also a part of services, i.e. more and more services are being digitally produced through information networks. The electronics industry in Finland concentrates mostly on research and development work. Mobile phones, measurement and control systems and product development are fields where thousands of IT engineers are employed in Finland.

Teaching in the Basic Studies concentrates on the principles of engineering sciences, language studies and developing students' social skills. Teaching in the Professional Studies concentrates on software technology, embedded systems, electronics, electrical engineering, data communication and automation engineering. Students also choose one of the lines of specialisation: Software Engineering, Embedded Systems, or Computer Network Technology.

The degree programme also requires students to do practical training (30 cr) in field-related companies. Additionally, students choose 9–15 credits of elective studies. They also do a final thesis worth 15 credits. The degree programme has strong ties with universities of applied sciences in Europe, which offers students excellent opportunities to study or work abroad.

The Software Engineering module produces engineers who are competent in utilising software technology in different applications for industries and businesses. During their studies in the module, students gain knowledge and skills in telecommunications engineering, computer graphics, Internet and mobile programming, and automation systems programming.

The Embedded Systems module produces engineers who have command of product development in electronics and the various stages of production and who are competent in utilising electronics to control machines, devices and systems. Students learn about how to develop embedded systems, microprocessors and how to programme them, as well as the production of electronics.

The Computer Network Technology module produces engineers who are competent in positions associated with networking development and maintenance. The module also provides students with the readiness they need to work as administrators of information systems (IS) for enterprises. Students learn about information networks, telecommunications technology, Internet programming, and Linux- and Microsoft-based server technologies.

## KEY LEARNING OUTCOMES

*Competence in mathematics and science*  
A Bachelor of Engineering

- \* is able to engage in logical–mathematical thinking and apply a logical–mathematical approach to problem solving in technology.
- \* is able to utilise mathematical principles, methods and tools.
- \* is familiar with the laws of physics needed in field–related applications and of the principles of sustainable development.

#### *Competence in hardware*

##### A Bachelor of Engineering

- \* commands electrical engineering and the safety issues associated with electricity.
- \* is familiar with the more common electronics components and how they work.
- \* understands the processes involved in developing and manufacturing electronics.
- \* is familiar with the architecture of computers and of how the essential components work.
- \* understands IP–based data networks and how their active devices work, and is able to develop, implement and maintain simple networks.

#### *Competence in software*

##### A Bachelor of Engineering

- \* commands programming technology: understands programming logic and knows common algorithms and data structures.
- \* is proficient in reading and interpreting programming code and utilising programming to solve problems.
- \* has knowledge of object oriented design and object oriented programming.
- \* masters the fundamentals of database design and implementation.
- \* is able to work in software projects and consider the needs of the company and client.

#### *Competence in ICT business*

##### A Bachelor of Engineering

- \* is familiar with the prerequisites for profitable business and able to utilise the more significant tools needed to plan and manage finances.
- \* understands the productisation processes in the ICT field; comprehensive understanding of product development, profitable production, and the essential issues related to customer interface.
- \* commands the knowledge and skills needed to supervise people, processes and projects, especially in a product development organisation.
- \* knows how to establish a business and work as an entrepreneur in technology, and understands of the significance of one's efforts as regards the profitability of the enterprise's operations.

#### *Competence in ICT engineering*

##### A Bachelor of Engineering

- \* is familiar with the theoretical foundation of one's chosen field, i.e. line of specialisation.
- \* is able to find, combine and apply the latest field–related information in technology utilising typical development methods and practices and to document the results of one's work.
- \* is able to communicate with clients and execute technical solutions that meet their needs.
- \* is able to engage in disciplined product development work independently and as a member of a project group, and to effectively communicate with professionals representing different areas of the ICT field.

#### *Competence in software engineering methods*

##### A Bachelor of Engineering

- \* commands a diverse range of programming skills, programming languages and their features.
- \* is able to utilise modern designing and modelling techniques and tools in software development.
- \* understands the significance of software usability in designing products and user interfaces, and is able to use the essential methods to evaluate usability and for user–oriented designing.

#### *Competence in software engineering processes*

##### A Bachelor of Engineering

- \* is able to utilise software engineering process models and procedures in determining customer needs, systems designing, software execution, quality assurance, and in documenting.
- \* is familiar with the typical life cycle of a software product and of the planning, execution and reporting of testing in the various stages of the software development process.
- \* understands the significance of effective work methods and processes, functioning communication, teamwork skills, cost–efficiency and consideration for the customer in practical software development.

#### *Competence in information networks*

##### A Bachelor of Engineering

- \* is able to design and execute safe and reliable information networks.
- \* is able to design and execute high–quality network services according to business needs.
- \* commands the support functions and maintenance processes required by information network services and has knowledge of how to monitor them and report about them according to the principles of development.

## OCCUPATIONAL PROFILES

Engineers in information technology (IT) work in key positions in the technology industry and information technology programming and service-providing enterprises. Typical job titles for IT engineers include programme designer, electronics designer, network specialist, product manager, sales manager, product development manager or production manager. Many students who study to be an IT engineer already work in the field while they study. The job situation for IT engineers is excellent.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to a master's degree in information technology. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at TITE 2009, 240 cr (1.9.2009).

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

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Additional information: [www.seamk.fi/tietotekniikka](http://www.seamk.fi/tietotekniikka)

## Degree Programme in Information Technology (In Finnish), 240 cr (1.9.2009) TITE 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KL04AT20	<b>BASIC STUDIES</b>					<b>60</b>
KL04AT11	<b>Supporting studies</b>					<b>3</b>
KL04AT10011	Introduction to technical studies	x				1
KL04AT10101	Research methods			x		2
KL04AT21	<b>Languages and communication</b>					<b>18</b>
KL04AT10050	English 1	x				3
KL04AT10060	English 2		x			3
KL04AT10070	English 3				x	3
KL04AT10040	Swedish	x				3
KL04AT10020	Communication and negotiation skills 1	x				3
KL04AT10030	Communication and negotiation skills 2			x		3
KL04AT30	<b>Mathematics</b>					<b>18</b>
KL04AT30000	Algebra and Trigonometry	x				4
KL04AT30100	Vectors and analytic geometry	x				3
KL04AT10135	Differential and integral calculation	x				3
KL04AT30300	Computer aided mathematics		x			4

KL04AT30400	Mathematics of computer science			x		4
KL04AT35	<b>Physics</b>					<b>15</b>
KL04AT35000	Mechanics	x				3
KL04AT35100	Electricity and magnetism	x				3
KL04AT35200	Thermophysics		x			3
KL04AT35300	Physics laboratory works		x			3
KL04AT35400	Wave motion and modern physics		x			3
KL04AT41	<b>Information technology</b>					<b>6</b>
KL04AT10300	Micro computer technology	x				3
KL04AT10311	Office applications	x				3
KL04BT	<b>PROFESSIONAL STUDIES</b>					<b>126</b>
KL04BT10	<b>COMMON PROFESSIONAL STUDIES</b>					<b>86</b>
KL04BT100	<b>Software engineering</b>					<b>27</b>
KL04BT20051	Basics of programming 1	x				3
KL04BT20052	Basics of programming 2	x				3
KL04BT40060	C Programming language	x				4
KL04BT50070	Object oriented programming		x			4
KL04BT51040	C++ programming			x		4
KL04BT51010	Data structures and algorithms		x			4
KL04BT50010	Operating systems		x			3
KL04BT50011	Linux Operating system		x			2
KL04BT200	<b>Embedded systems</b>					<b>13</b>
KL04BT40010	Embedded systems	x				4
KL04BT32031	Embedded systems programming		x			4
KL04BT40032	Project in embedded systems			x		5
KL04BT300	<b>Data communication</b>					<b>15</b>
KL04BT53011	Data communication		x			4
KL04BT50052	Computer networks			x		4
KL04BT42041	Wireless data transmission			x		4
KL04BT50060	Navigation technologies			x		3
KL04BT400	<b>Electrical engineering and electronics</b>					<b>19</b>
KL04BT20010	Electrical engineering	x				5
KL04BT20220	Electrical safety	x				2
KL04BT40110	Printed circuit board design	x				3
KL04BT40120	Basics of digital technology		x			3
KL04BT40122	Special project in embedded systems	x				3
KL04BT40131	Basics of electronic		x			3
KL04BT500	<b>Automation engineering</b>					<b>6</b>
KL04BT20230	Basics of automation		x			3
KL04BT20240	PLC programming		x			3
KL04BT600	<b>Economy and management</b>					<b>6</b>
KL04BT20300	Industrial economics	x				3
KL04BT20301	Human resources management				x	3



KL04BTOHTE	<b>SOFTWARE ENGINEERING PROFESSIONAL STUDIES</b>					<b>40</b>
KL04BTIJÄ	<b>Information systems module</b>					<b>16</b>
KL04BT50020	Databases		x			3
KL04BT50040	Application development		x			3
KL04BT52010	Basics of software production			x		3
KL04BT51081	Computer graphics			x		4
KL04BT51051	Windows systems programming			x		3
KL04VEMO	<b>Network and mobile programming</b>					<b>24</b>
KL04BT52030	Software project			x		5
KL04BT50180	Basics of mobile programming		x			5
KL04BT50181	Symbian C++				x	3
KL04BT53040	Network programming			x		5
KL04BT40040	Embedded PC systems			x		3
KL04BT40042	Server programming 1			x		3
KL04BTSUJÄ	<b>EMBEDDED SYSTEMS PROFESSIONAL STUDIES</b>					<b>40</b>
KL04BTELEK	<b>Electronics</b>					<b>17</b>
KL04BT41011	Laboratory assignments in electronics		x			3
KL04BT41041	Applications in electronics		x			3
KL04BT41020	Power electronics			x		4
KL04BT41050	Electronic production engineering			x		3
KL04BT41042	Electronic project work			x		4
KL04BTDIGI	<b>Digital technology</b>					<b>13</b>
KL04BT42010	Digital technology		x			3
KL04BT42030	Signal processing			x		3
KL04BT42020	Circuit design			x		3
KL04BT40121	Networks and Bus interfaces			x		4
KL04BTAUTI	<b>Automaation tietotekniikka</b>					<b>10</b>
KL04BT43031	Process automation		x			3
KL04BT40041	Embedded PC systems			x		3
KL04BT43021	Basics of control engineering			x		4
KL04BTTIVE	<b>COMPUTER NETWORK TECHNOLOGY PROFESSIONAL STUDIES</b>					<b>40</b>
KL04BTTDIGI	<b>Digital technology</b>					<b>13</b>
KL04BT32010	Digital technology	x				3
KL04BT33040	Laboratory assignments in electronics	x				3
KL04BT42031	Signal processing	x				3
KL04BT40123	Networks and Bus interfaces		x			4
KL04BTTIJÄ	<b>Information systems</b>					<b>9</b>
KC04BT50020	Databases	x				3
KL04BT50041	Application development		x			3
KL04BT40043	Server programming 1			x		3
KL04BTTPAAR	<b>Server architectures</b>					<b>8</b>
KL04BT50012	Linux server			x		4
KL04BT50014	Windows – Server			x		4

KL04BTTTITI	<b>Data communication and information networks</b>				<b>10</b>
KL04BT53030	Telecommunication laboratories	x			3
KL04BT53031	Networking, routers and routing basics	x			4
KL04BT53032	WAN technologies	x			3
KL04DT90	<b>FREE–CHOICE STUDIES</b>				<b>10</b>
KL04ET21	<b>PRACTICAL TRAINING</b>				<b>30</b>
KL04FT30	<b>THESIS</b>				<b>15</b>

## Study Descriptions

### BASIC STUDIES, 60 op KL04AT20 (study entity)

The aim of the Basic Studies is to provide students with a foundation of knowledge and methodology for reasoning in the natural sciences and to provide them with readiness to acquire field–related professional skills and to complete their Professional Studies.

### Research methods, 2 op KL04AT10101 (study unit)

#### *Lecturers*

Jorma Mettälä, LSc (Eng.)

#### *Objectives*

Students will acquire skills necessary in data acquisition for their thesis. They will be familiar with various research methods and be able to apply them in their thesis writing process.

#### *Content*

The course involves the use of the Internet, and library and university databases. Students will be familiar with scientific research methods and how to apply them to their own thesis.

#### *Literature / Study Material*

To be announced.

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

Assignments and exam

### English 1, 3 op KL04AT10050 (study unit)

#### *Lecturers*

Anne Vuokila, MA

#### *Objectives*

Students will advance their skills in language learning and be competent in finding information in dictionaries, research articles, and on the Internet and in this way become familiar with terminology used in their field. Upon completion of the course, students will be competent in telling others about their education, country and its industry. They will be aware of the differences in communicative situations in Finnish and in English, and they will be competent in communicating in everyday situations and at work using English. They will also be familiar with field–related terminology.

#### *Content*

- Telling about oneself and one's education
- Finnish industry and facts about Finland
- Product descriptions
- Basic hydraulic and material related terminology (integration)
- Basic IT terminology and components
- Basic mathematical terms and shapes in English
- How to search for and process information (Internet article)

*Literature / Study Material*

Mustonen E. & Rautelin J: English Booster for Engineering Students. WSOY

*Learning Methods*

Oral exercises, such as dialogues, discussions and presentations, written assignments

*Assessment*

Using English actively (oral presentations and dialogues), completion of written assignments and exercises, exam. All parts of the course must be completed successfully to receive a grade for the course.

*Prerequisites*

Command of the basic structures of English

*Languages of Instruction*

Finnish and English

## **English 2, 3 op KL04AT10060 (study unit)**

*Lecturers*

Anne Vuokila, MA

*Objectives*

Students will have command of basic field-related terminology and be competent in using it when speaking and writing. Upon completion of the course, students will

- understand the different stages of business correspondence and know how to write a quotation in English,
- be familiar with typical field-related communications by phone or e-mail,
- know how to tell about a company's operations in English give a presentation about it,
- be familiar with the vocabulary related to trade fairs,
- be able to describe industrial processes in English,
- be familiar with basic vocabulary and forms for mathematics, and
- know how to write a CV.

*Content*

- Business correspondence
- Business communication by e-mail and phone
- Company presentations
- Trade fairs
- Describing processes
- Mathematical terms

*Literature / Study Material*

To be announced.

*Learning Methods*

Oral exercises such as dialogues, discussions and presentations, and written assignments

*Assessment*

Using English actively (oral presentations and dialogues), completion of written assignments and exercises, exam. All parts of the course must be completed successfully to receive a grade for the course.

*Languages of Instruction*

Finnish and English

## **English 3, 3 op KL04AT10070 (study unit)**

*Lecturers*

Anne Vuokila MA

*Objectives*

Upon completion of the course, students will

- be familiar with the various phases of applying for a job in English,
- understand the basics and conditions for technical reading and writing,
- have command of the procedures involved in meetings,

- be familiar with advanced technical terminology, and
- be able to prepare a thesis abstract in English.

#### *Content*

- Applying for a job
- Technical reading and writing
- Meetings and negotiations

#### *Literature / Study Material*

To be announced.

#### *Learning Methods*

Oral exercises such as dialogues, discussions and presentations, and written assignments

#### *Assessment*

Using English actively (oral presentations and dialogues), completion of written assignments and exercises, exam. All parts of the course must be completed successfully to receive a grade for the course.

#### *Languages of Instruction*

Finnish and English

### **Swedish, 3 op KL04AT10040 (study unit)**

#### *Objectives*

Upon completion of the course, students will be competent in communicating in Swedish at work. They will be able to participate actively in interactive communication, and they will know how to acquire and use field-related information.

#### *Content*

- Education, applying for a job, working
- Work environment and society
- Customer contacts
- General purpose texts
- Basic field-related terminology

#### *Literature / Study Material*

To be announced.

#### *Learning Methods*

Lectures, listening comprehension and oral exercises, written assignments in groups and independently.

#### *Assessment*

Active participation in lectures, mid-term and final exam

#### *Languages of Instruction*

Finnish and Swedish

### **Communication and negotiation skills 1, 3 op KL04AT10020 (study unit)**

#### *Lecturers*

Pia-Mari Riihilahti, MA

#### *Objectives*

Upon completion of the course, students will

- understand the structures of the communication process, the various factors affecting the process and apply this knowledge to communicative situations in the working world,
- use proper language in writing documents needed at work,
- be able to create a standardized document and knows the phases involved in business correspondence,
- know how to conduct themselves when looking for a job and to compile a job application and CV,
- know how to speak in public and give good presentations,
- understand how cultural differences affect the communication process, and
- be competent in writing summaries of research texts.

#### *Content*

- Structure and significance of communication in the working world
- Team work
- Everyday communication at the workplace
- Standards
- Business correspondence
- Job applications, job interviews, and CVs
- Non-verbal communication and the significance of it in various situations
- Book report
- Cultures and communication
- Grammar

#### *Literature / Study Material*

Kauppinen, A., Nummi, J. & Savola, T: Tekniikan viestintä. Edita.

#### *Learning Methods*

Group work, presentations, oral presentations, and written assignments

#### *Assessment*

Active participation in the classroom, completion of written assignments, exam. All part must be approved to receive a grade for the course.

#### *Languages of Instruction*

Finnish

## **Communication and negotiation skills 2, 3 op KL04AT10030 (study unit)**

#### *Lecturers*

Pia-Mari Riihilahti, MA

#### *Objectives*

Upon completion of the course, students will

- be familiar with the concept of process writing and its advantages,
- be competent in producing formal written material,
- be able to write clear instructions and specifications,
- know how to write scientific reports and create a bibliography,
- have skill in reasoning and debating,
- have command of various communicative situations, e.g. presentations, discussions, and
- have knowledge of negotiation procedures and meetings.

#### *Content*

- Writing instructions and specifications
- Proposals
- Reports
- Analyzing texts and critical evaluation of sources
- Academic writing
- Argumentation
- Presentations
- Negotiations and meetings
- Grammar

#### *Literature / Study Material*

Kauppinen A., Nummi J. & Savola T: Tekniikan viestintä. Edita.

#### *Learning Methods*

Group work, oral presentations, and written assignments

#### *Assessment*

Active participation in class, completion of written assignments and exercises, and exam. All parts of the course must be approved to receive a grade for the course.

#### *Languages of Instruction*

Finnish

## **Algebra and Trigonometry, 4 op KL04AT30000 (study unit)**

### *Lecturers*

- Pasi Mikkonen, PhD
- Jyri Lamp, PhD

### *Objectives*

Students will understand mathematical concepts (see Contents) and methods, and they will be able to use them to solve the problems in technology.

### *Content*

- Simplification of algebraic expressions
- Equations
- Trigonometry
- Vectors

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and independent study

### *Assessment*

Exam + calculations

## **Vectors and analytic geometry, 3 op KL04AT30100 (study unit)**

### *Lecturers*

- Pasi Mikkonen, PhD
- Jyri Lamp, PhD

### *Objectives*

Students will understand mathematical concepts and methods and be able to use them to solve problems in the field of technology.

### *Content*

Vectors and analytical geometry

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and independent studying

### *Assessment*

Calculations and an examination

### *Prerequisites*

- Algebra
- Trigonometry

## **Differential and integral calculation, 3 op KL04AT10135 (study unit)**

### *Lecturers*

- Jyri Lamp, PhD
- Pasi Mikkonen, PhD

### *Objectives*

Students will understand mathematical concepts and methods (see Contents) discussed during the course, and they will be able to use them to solve the problems in technology.

*Content*

Differential and integral calculus

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures, calculations and independent study

*Assessment*

Exam + calculations

*Prerequisites*

First-year mathematics courses

*Languages of Instruction*

Finnish

**Computer aided mathematics, 4 op  
KL04AT30300 (study unit)**

*Lecturers*

Pasi Mikkonen, PhD

*Objectives*

Students will have command of MatLab software in solving mathematical problems. They will also understand its advantages and limitations.

*Content*

- Using MatLab: solving equations, drawing diagrams, matrices and vectors, processing data, derivation and integration
- Examples and exercises for Professional Studies

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures and computer exercises

*Assessment*

Exam and exercises

*Prerequisites*

- First-year mathematics courses
- Differential and Integral Calculus

**Mathematics of computer science, 4 op  
KL04AT30400 (study unit)**

*Lecturers*

Pasi Mikkonen, PhD

*Objectives*

Students will understand the mathematical concepts and methods stated in the Contents. They will know how to apply them in solving problems in the field of technology.

*Content*

- Discrete mathematics
- Encryption and security
- Algorithms

*Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, calculations and independent study

### *Assessment*

Exam and calculations

## **Mechanics, 3 op KL04AT35000 (study unit)**

### *Lecturers*

Jouni Björkman, PhD

### *Objectives*

Students will acquire basic knowledge of technology-based physics in the areas stated in the Contents and be prepared to use that knowledge in further studies and the working world. Students will be competent in solving problems in physics using models and in presenting their results in an appropriate manner.

### *Content*

Mechanics of a rigid object: kinematics of a progressive and rotating object, dynamics and gravitation

### *Literature / Study Material*

- Hautala et al. (latest edition). Insinöörin (AMK) Fysiikka, osa 1, Lahden teho-opetus.
- Tekniikan kaavasto. Tammertekniikka.

### *Learning Methods*

The course comprises 40 h of contact teaching: lectures and calculations. Eighty-percent attendance is required in the calculation exercises.

### *Assessment*

To complete the course, students sit a final exam. Also, students must complete at least 30 % of the calculations to receive a grade for the course. Participation in the course and the requirements for the calculations are a prerequisite for participating in the re-take exam. The calculations requirement is not applied to students who have completed advanced physics in upper secondary school (8 courses), and they are entitled to take the final exam directly.

### *Prerequisites*

Knowledge of physics equivalent to one compulsory course in upper secondary school in addition to the physics learned in secondary school.

## **Electricity and magnetism, 3 op KL04AT35100 (study unit)**

### *Lecturers*

Jouni Björkman, PhD

### *Objectives*

Students will acquire basic knowledge of technology-based physics in the areas stated in the Contents and be prepared to use that knowledge in further studies and the working world. Students will be competent in solving problems in physics using models and in presenting their results in an appropriate manner.

### *Content*

Electrostatics, electrodynamics and magnetism

### *Literature / Study Material*

- Hautala et al. (latest edition). Insinöörin (AMK) Fysiikka, osa 1.
- Peltonen et al. (latest edition). Insinöörin (AMK) Fysiikka, osa 2 Lahden teho-opetus.
- Tekniikan kaavasto. Tammertekniikka.

### *Learning Methods*

The course comprises 48 h of contact teaching: lectures and calculations. Eighty-percent attendance is required in the calculation exercises.

### *Assessment*

To complete the course, students sit a final exam. Also, students must complete at least 30 % of the calculations to receive a grade for the course. The calculations requirement is not applied to students who have completed advanced physics in upper secondary school (8 courses), and they are entitled to take the final exam directly.



*Prerequisites*

Knowledge of physics equivalent to one compulsory course in upper secondary school in addition to the physics learned in secondary school.

## **Thermophysics, 3 op KL04AT35200 (study unit)**

*Lecturers*

- Jouni Björkman, PhD
- Jyri Lamp, PhD

*Objectives*

Students will acquire basic knowledge of technology-based physics in the areas stated in the Contents and be prepared to use that knowledge in further studies and the working world. Students will be competent in solving problems in physics using models and in presenting their results in an appropriate manner.

*Content*

- Hydrostatics
- Hydrodynamics
- Mechanics of solids and fluids
- Thermophysics
- Thermodynamics

*Literature / Study Material*

- Hautala et al. (latest edition). Insinöörin (AMK) Fysiikka, osa 1. Lahden teho-opetus.
- Tekniikan kaavasto. Tammertekniikka.

*Learning Methods*

The course comprises 48 h of contact teaching: lectures and calculations. Eighty-percent attendance is required in the calculation exercises.

*Assessment*

To complete the course, students sit a final exam. Also, students must complete at least 30 % of the calculations to receive a grade for the course. The calculations requirement is not applied to students who have completed advanced physics in upper secondary school (8 courses), and they are entitled to take the final exam directly.

*Prerequisites*

Mechanics

## **Physics laboratory works, 3 op KL04AT35300 (study unit)**

*Lecturers*

- Jouni Björkman, PhD
- Jyri Lamp, PhD

*Objectives*

Students will acquire basic knowledge of experimental measurements in physics, processing and reporting results, and the benefits of experiential physics in the various areas of technology. Work in the laboratory will develop students' skills in information technology, language skills and readiness to work on teams. Laboratory work complements the theory students learn in the classroom.

*Content*

Work in the physics laboratory

*Literature / Study Material*

Guidelines for working in the physics laboratory (Seinäjoki UAS, School of ICT)

*Learning Methods*

As members of a team, students will make observations and measurements on the technical aspects of central phenomena in physics. They will analyse results and compile technical reports.

*Assessment*

Laboratory work, reports, and final exam

### *Prerequisites*

- Mechanics
- Theory of Electricity and Magnetism
- Thermodynamics

## **Wave motion and modern physics, 3 op KL04AT35400 (study unit)**

### *Lecturers*

Jouni Björkman, PhD

### *Objectives*

Students will acquire basic knowledge of the theory of wave motion and modern physics needed for the working world and further education. Students will be competent in solving problems in physics using models (equations) and presenting results in a proper manner.

### *Content*

- Theory of wave motion
- Modern physics

### *Literature / Study Material*

- Peltonen et al. (latest edition). Insinöörin (AMK) Fysiikka, osa 2. Lahden teho-opetus.
- Tekniikan kaavasto. Tammertekniikka.

### *Learning Methods*

The course comprises 40 h of contact teaching: lectures and calculations

### *Assessment*

Final exam

## **Micro computer technology, 3 op KL04AT10300 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Upon completion of the course, students will be competent in taking the necessary measures to maintenance and expand personal computers.

### *Content*

- PC structure
- Structures and functions of peripheral devices
- Processors and basic connections
- Magnetic and optic memory
- Monitors, voice cards, scanners and printers

### *Literature / Study Material*

- Lähteinen–Pietikäinen: PC–tekniikan käsikirja. Helsinki Media.
- Inside PC–laitetekniikka. Reima Flyktman IT Press.

### *Learning Methods*

Lectures, exercises and laboratory work

### *Assessment*

Exercises, completion of laboratory assignments and an examination

### *Languages of Instruction*

Finnish

## **Office applications, 3 op KL04AT10311 (study unit)**

### *Lecturers*

Jukka Mäntylä

### *Objectives*

Students will be familiar with the software and computer systems used at Seinäjoki UAS, and they will be competent in using that software. Upon completion of the course, students will be familiar with basic IT terminology, understand the role of IT in society and understand how IT can be applied to their chosen field.

### *Content*

- Exercises pertaining to Seinäjoki UAS's data processing systems (Intranet, Student Register, online learning, equipment)
- Online services (Internet and email)
- Word processing, spreadsheets, graphics, mathematics software
- Creating a home page

### *Literature / Study Material*

- Juha Paananen, Tietotekniikan peruskirja. Docendo.
- Software guidebooks
- Lecture notes

### *Learning Methods*

Lectures, exercises and independent study

### *Assessment*

Written exam and approved exercises

## **Basics of programming 1, 3 op KL04BT20051 (study unit)**

### *Lecturers*

Hilkka Niemelä, MA

### *Objectives*

Students will have command of the basics in programming and structured program design. They will learn to design, code, document and test small-scale console applications.

### *Content*

Basics language structures: types, statements, input/output, selection, looping, branching, methods

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Assessment is based on completed exercises and an exam.

## **Basics of programming 2, 3 op KL04BT20052 (study unit)**

### *Lecturers*

- Hilkka Niemelä, MA
- Jukka Mäntylä, MA

### *Objectives*

The course provides in-depth knowledge of structured program design. Students will also learn to use the components of a graphical user-interface. They will be competent in designing, coding, documenting and testing small-scale interface applications.

### *Content*

- User–interface components
- Layouts and connecting transactions to components
- Using objects

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and exercises

*Assessment*

Assessment is based on completed exercises and an exam.

*Prerequisites*

Basics of Programming I

**C Programming language, 4 op  
KL04BT40060 (study unit)**

*Lecturers*

Seppo Stenberg

*Objectives*

Students will acquire basic knowledge of the co–operative use of computers and embedded devices and of simple methods of control and monitoring. They will also be introduced to solutions for gathering information and saving it. They will learn about C–programming in a hardware–oriented environment.

*Content*

- C–programming tools
- Connecting embedded devices to a computer
- Gathering gauging data with a separate memory card or an embedded device appropriate for the purpose

*Literature / Study Material*

- Online material
- Kernighan & Ritchie: The C Programming Language

*Learning Methods*

Lectures and exercises

*Assessment*

Exam and exercises

*Prerequisites*

- Basics of Programming
- Basics of Electronics

*Languages of Instruction*

Finnish

**Object oriented programming, 4 op  
KL04BT50070 (study unit)**

*Lecturers*

Petteri Mäkelä, MSc

*Objectives*

Students will acquire insight into object–oriented programming, its concepts and principles.

*Content*

- Class and object
- Encapsulation
- Inheritance and polymorphism
- Java syntax
- Classification

- Abstract classes
- Class libraries

*Literature / Study Material*

Vesterholm, M., Kyppö, J. Uusin painos. Java–ohjelmointi. Talentum Media Oy. ISBN 952–14–0849–9

*Learning Methods*

Lectures and exercises

*Assessment*

Exam and exercises

*Prerequisites*

Basics in Programming

*Languages of Instruction*

Finnish

## **C++ programming, 4 op KL04BT51040 (study unit)**

*Lecturers*

Petteri Mäkelä, MSc (Eng.)

*Objectives*

Students will become familiar with the fundamentals of C++ language programming development and advance their knowledge of object–oriented programming. They will also acquire knowledge of basic data structures and how to utilise the C++ Standard Template Library.

*Content*

- Differences between C++ language and C and Java programming languages
- Class types and encapsulating
- Class member variables
- Object–oriented and class–specific methods
- Automatic and dynamic memory residency
- C++ Standard Template Library

*Literature / Study Material*

Hietanen, P. 2001. C++ ja olio–ohjelmointi. Docendo Finland Oy. Jyväskylä. ISBN 951–846–000–0.

*Learning Methods*

Lectures and assignments

*Assessment*

Exam and assignments

*Prerequisites*

- Object–oriented Programming
- Hardware–oriented Programming

## **Data structures and algorithms, 4 op KL04BT51010 (study unit)**

*Lecturers*

Petteri Mäkelä, MSc

*Objectives*

Students will learn to apply advanced data structures and algorithms in programme designing. They will also learn to use data structure classes and the algorithms associated with them in object–oriented programming.

*Content*

- Charts, ring buffers, linked lists, pushup lists, push–down lists, and tree structures
- Sorting and search algorithms
- Java language
- Threads and synchronization methods

*Literature / Study Material*

Vesterholm M. and Kyppö J. 2004. Java–ohjelmointi. Talentum Media Oy. ISBN 952–14–0849–9

*Learning Methods*

Lectures and exercises

*Assessment*

Exercises, assignment and an examination

*Prerequisites*

Object–oriented Programming

*Languages of Instruction*

Finnish

**Operating systems, 3 op  
KL04BT50010 (study unit)**

*Lecturers*

Alpo Anttonen, MSc (Eng.)

*Objectives*

Students will learn the concepts associated with operating systems and will be introduced to memory management and filing systems.

*Content*

- Concepts associated with operating systems
- Process management
- Synchronization and communication
- Memory control and hierarchy
- Control of peripheral devices
- Basics of Linux

*Literature / Study Material*

- Haikala: Käyttöjärjestelmät, Modeemi Ry.
- Ernvall: Käyttöjärjestelmien perusteet. Opintomoniste, Jyväskylän yliopisto.
- Lecture notes

*Learning Methods*

Lectures, practical exercises on the computer

*Assessment*

Exercises and examination

*Prerequisites*

Computer Technology

*Languages of Instruction*

Finnish

**Linux Operating system, 2 op  
KL04BT50011 (study unit)**

*Objectives*

Student will learn how to use and maintain a Linux workstation.

*Content*

- Linux operating system
- Practising basic commands
- Installing the Linux system into KDE and Gnome workstation environments
- Maintaining a workstation

*Literature / Study Material*

Material provided by the teacher.

### *Learning Methods*

Lectures and assignments completed in the laboratory or at home

### *Assessment*

Classroom work and an exam

## **Embedded systems, 4 op KL04BT40010 (study unit)**

### *Lecturers*

- Seppo Stenberg, MSc (Eng.)
- Heikki Palomäki, MSc (Eng.)

### *Objectives*

Students will learn the basic structures and function of micro-controllers and how to create a embedded system using a micro-controller. Additionally, students will learn about hardware-oriented programming in Assembly and C language. Students will become familiar with hardware-oriented programming through various applications and exercises. Students will be competent in creating a programme and electronics for a small embedded system.

### *Content*

- Hardware-oriented C language and, if necessary, Assembly language
- C translator
- Programming programme and simulator + use and maintenance
- 8-bit micro-controller and peripheral devices for it

### *Literature / Study Material*

- Online material
- Manuals for micro-controllers

### *Learning Methods*

Lectures and assignments

### *Assessment*

Exam and assignments

### *Prerequisites*

Basics in Programming I

## **Embedded systems programming, 4 op KL04BT32031 (study unit)**

### *Lecturers*

Seppo Stenberg

### *Objectives*

Students will learn about the user-interfaces and bus interfaces for embedded systems. They will also become familiar with how to connect various peripheral circuits, displays and keyboards to micro-controllers, as well as how to programme them in C language. Students learn how to carry out a software project as a modular and hierarchical structure.

### *Content*

Programming will involve the use of hardware-oriented C language and the programmes will be carried out in projects. The working environment will involve the use of the C translator, programming program and simulator. Students will use the ATmega series micro-controller and the program libraries and peripheral devices associated with it.

### *Literature / Study Material*

- Online material
- Manuals for micro-controllers

### *Learning Methods*

Lectures and projects

### *Assessment*

Project work

*Prerequisites*  
Embedded Systems

*Languages of Instruction*  
Finnish

## **Project in embedded systems, 5 op KL04BT40032 (study unit)**

*Lecturers*  
Heikki Palomäki

*Objectives*  
Students will have command of how to carry out a project development project, from beginning to end, involving embedded systems. They will learn to work as a group member and understand the significance of working with other groups when defining the areas of co-operation.

*Content*  
The themes for the project vary each year, but it usually involves electronics, software design, and possibly mechanics design. Topics for the work include various applications for intelligent technology, such as robotics, automation systems, data transfer, sensor technology, or modern methods of programming.

*Literature / Study Material*

- Online material
- Independent information acquisition

*Learning Methods*  
Guided project work in groups

*Assessment*  
Approved project results and report

*Prerequisites*  
Programming Embedded Systems

*Languages of Instruction*  
Finnish

## **Data communication, 4 op KL04BT53011 (study unit)**

*Lecturers*  
Alpo Anttonen, MSc (Eng.)

*Objectives*  
Students will become familiar with data communications protocols and how they work. They will understand the principles of data transfer and data communications systems. They will also be familiar with the latest communications network and application solutions.

*Content*  
Students will gain general understanding of the entire realm of data communications and of various data communications networks and their features, concepts and various relationships. They will understand the principles behind IP addresses and subnetting, TCP/IP protocols and how they work. Students will also be familiar with the OSI and TCP/IP structure and functions of stratified system models as well as the configuration of routers.

*Learning Methods*  
Lectures and laboratory exercises

*Assessment*  
Exam and assignment

*Languages of Instruction*  
Finnish



## **Computer networks, 4 op KL04BT50052 (study unit)**

### *Lecturers*

Alpo anttonen MSc (Eng.)

### *Objectives*

Students will become familiar with LAN network topology according to universal cabling standards and how to create a safe network. They will do this through theoretical and practical exercises. Upon completion of the course, students will know how to choose network technology appropriate to a given situation, calibrate network connections and control devices.

### *Content*

Students will understand the purposes for using and functions of the following network expansion components: repeater, bridge, switch, and router. The data security part of the course involves discussion of logical security methods, such as user identification, data encryption, surveillance, security protocol, and data security of open systems. Upon completion of the course, students will be competent in designing a specified local network.

### *Literature / Study Material*

- Vainio M. and Hakala M. 2003. Tietoverkon rakentaminen. Docendo.
- Järvinen P. 2002. Tietoturva & yksityisyys. Docendo.
- Lecture notes

### *Learning Methods*

Lectures and practical exercises in the laboratory

### *Assessment*

Exam and assignment

### *Languages of Instruction*

Finnish

## **Wireless data transmission, 4 op KL04BT42041 (study unit)**

### *Lecturers*

Alpo Anttonen MSc (Eng.)

### *Objectives*

Students will acquire knowledge about the possibilities and limitations of wireless data transmission.

### *Content*

- Basics of radio technology and uses in data transmission
- Theory of radio frequency
- Radio frequency modulation
- Radio modems
- Spread spectrum techniques such as IEEE 802.11
- Bluetooth
- Radio legislation
- Infrared
- Laser
- Microwaves
- GSM and UMTS networks
- Communications and GPS satellites

### *Literature / Study Material*

- Kaj Granlund (2001 or later edition). Langaton tiedonsiirto
- Lecture notes

### *Learning Methods*

Lectures and laboratory work where students construct and test wireless networks

### *Assessment*

Exam and assignment

*Prerequisites*  
Communications

*Languages of Instruction*  
Finnish

## **Navigation technologies, 3 op KL04BT50060 (study unit)**

*Lecturers*  
Petteri Mäkelä, MSc (Eng.)

*Objectives*  
Students will gain insight into positioning technologies and know how to utilise them in various systems.

*Content*

- GPS and Galileo
- Coordinate systems
- Satellite positioning using sensors
- Indoor navigation
- Navigation in the mobile phone network
- Location-based systems

*Literature / Study Material*  
To be announced at the beginning of the course.

*Learning Methods*  
Lectures and exercises

*Assessment*  
Assignment and examination

*Prerequisites*

- Analytic Geometry
- Matrix Calculus
- Mathematics for Information Technology
- Data Structures
- Algorithms

*Languages of Instruction*  
Finnish

## **Electrical engineering, 5 op KL04BT20010 (study unit)**

*Lecturers*  
Ismo Tupamäki

*Objectives*  
Upon completion of the course, students will understand the phenomena associated with electricity. They will be competent in mathematically solving basic problems in direct and alternating currents. They will have command of electric quantity measurements using various measuring devices known in the field.

*Content*

- Electrodynamics
- Direct and alternating currents
- Solutions for electric circuits
- Three-phase systems
- Types of electric motors
- Use of measuring devices and other apparatuses for measuring electric quantities

*Literature / Study Material*

- Aura & Tonteri: Teoreettinen sähkötekniikka ja sähkökoneiden perusteet. WSOY.
- Lecture notes

- Measuring devices in the laboratory

#### *Learning Methods*

Lectures, calculations, and measurements

#### *Assessment*

- Exam (mid-term exams)
- Calculations

#### *Prerequisites*

Theory of Electricity and Magnetism

#### *Languages of Instruction*

Finnish

### **Electrical safety, 2 op KL04BT20220 (study unit)**

#### *Objectives*

Students will be familiar with the general qualifications for working with electricity, and they will possess the necessary knowledge and skills for working safely with electricity. They will also understand the dangers associated with handling electricity and know how to protect themselves properly.

#### *Content*

- Dangers of electricity
- Act and decree on electric safety
- Protection from electric shock
- Safety in working with electricity
- Installation conditions and space categories
- First-aid for accidents with electricity
- Code of conduct for the laboratory
- Basic rules for working with electricity

#### *Literature / Study Material*

- Regulations pertaining to safety and electricity
- D1 manual concerning the installation of electricity in buildings
- Field-related standards
- Lecture material
- [www.tukes.fi](http://www.tukes.fi)

#### *Learning Methods*

Lectures

#### *Assessment*

Exam

#### *Languages of Instruction*

Finnish

### **Printed circuit board design, 3 op KL04BT40110 (study unit)**

#### *Lecturers*

Seppo Stenberg

#### *Objectives*

Students will learn the fundamentals of designing circuit boards including the designing of circuit diagrams and circuit board layouts, as well as the modelling of the components for them. Students will have command of a designing programme and know how to create documents needed in producing circuit boards.

#### *Content*

- PADS, Eagle, etc. designing programmes
- Personal design and documentation
- Creation of a circuit board either by cutting or etching

### *Literature / Study Material*

- Online material
- Manuals for the designing programmes

### *Learning Methods*

Lectures and exercises

### *Assessment*

Exercises

### *Prerequisites*

Basics in Electronics

### *Languages of Instruction*

Finnish

## **Basics of digital technology, 3 op KL04BT40120 (study unit)**

### *Objectives*

Students will be competent in processing digital data and using it in designing and programming logical circuits.

### *Content*

- Number systems
- Binary arithmetic
- Codes
- Gate circuits
- Karnaugh map
- Flip-flops
- Registers
- Calculators
- A/D conversions

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, assignments and computer-aided simulations

### *Assessment*

Assignments and an examination

### *Languages of Instruction*

Finnish

## **Special project in embedded systems, 3 op KL04BT40122 (study unit)**

### *Lecturers*

Heikki Palomäki

### *Objectives*

Students will acquire an overall understanding of the structures and opportunities of electronics and embedded systems. They will be competent in connecting and soldering electronic components, and they will understand how micro-controls work. Students will also be familiar with hardware-oriented programming.

### *Content*

Students will assemble an intelligent electronic device, which contains a micro-controller with various inputs and outputs connected to it. Students will solder the components onto the circuit card themselves, test how well the connections work and create a simple programming code according to given instructions.

### *Literature / Study Material*

The necessary material can be found online. Material will also be distributed during the lessons.

### *Learning Methods*

Supervised independent work

### *Assessment*

- Active participation in the lessons
- Quality of students' work and results

## **Basics of electronic, 3 op KL04BT40131 (study unit)**

### *Objectives*

Students will acquire knowledge of basic electronic components and know how to make simple connections with filters and amplifiers. They will understand how they work and how to measure their properties.

### *Content*

- Basic properties of passive components, independent semi-conductors, operational amplifiers and optical components
- Common connections
- Making test connections
- Calibrating and analysing connections
- Writing calibration reports

### *Learning Methods*

- Lectures: 15 h
- Assignments and reports: 21 h

### *Assessment*

Calibration reports and work reports

## **Basics of automation, 3 op KL04BT20230 (study unit)**

### *Objectives*

Students will understand the prerequisites for the functions of automated systems, and learn to identify functional areas and their interdependency.

### *Content*

- Control systems
- Programming
- Equipment
- Sensors
- Control and adjustment
- Feedback
- Control components

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, assignments and exam

### *Assessment*

Completion of the assignments and an examination

### *Prerequisites*

Electrical Engineering

### *Languages of Instruction*

Finnish

## **PLC programming, 3 op KL04BT20240 (study unit)**

### *Lecturers*

- Hannu Reinilä, MSc (Eng.)
- Niko Ristimäki, BSc (Eng.)

### *Objectives*

Students will become familiar with the structure and functions of programmable logic commonly used in mechanical and production automation and the logics needed in programming. They will know how to compile sequence-based programmes. Students will learn to make simple user-interfaces using touch screens.

### *Content*

- Structure of programmable logic
- Use of programming programmes
- Storage areas for logics
- Common byte commands
- Timers, calculators, bytes, words and processing them
- Holding circuits and trigger elements
- Sequence-based programming
- Designing and programming a user-interface

### *Literature / Study Material*

- Lecture material
- Demonstrations given during lectures
- Exercises
- Programming and product manuals

### *Learning Methods*

Lectures, demonstrations, exercises, and group work

### *Assessment*

Exercises and an examination

### *Languages of Instruction*

Finnish

## **Industrial economics, 3 op KL04BT20300 (study unit)**

### *Lecturers*

Jorma Mettälä, LSc (Tech.)

### *Objectives*

Students will gain insight into the national economy, structure of the industry, domestic competitive advantage, the main concepts of economic, concepts of marketing and production operations, and core issues pertaining to quality management.

### *Content*

- Industrial strategy and policies, types of enterprises, procedures for establishing a company, and management
- Financial requirements for maintaining an enterprise
- Growth, profitability, liquidity, solvency
- Basic concepts of marketing, human resources and quality management

### *Literature / Study Material*

- Uusi-Rauva, E., Haverila, M. & Kouri, I. 1999. Teollisuustalous. Tammerpaino. Tampere. ISBN 951-96765-2-X
- Lecture material and other material distributed by the lecturer

### *Learning Methods*

Lectures, exercises and work in small groups

### *Assessment*

Class exercises and an examination

### *Languages of Instruction*

Finnish

## **Human resources management, 3 op KL04BT20301 (study unit)**

### *Objectives*

Students will be familiar with the basic issues involved in managing people and matters. Upon completion of the course, students will understand various organisation models, management styles, and know how to utilise various creative methods.

### *Content*

- Organisations
- Management skills
- Management models
- Occupational psychology
- Basics of personnel management
- Evaluation of students' management profile and creativity

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, assignments and seminars

### *Assessment*

Participation in classroom assignments and exam

## **Databases, 3 op KL04BT50020 (study unit)**

### *Lecturers*

Mikko Auranen, MA

### *Objectives*

Students will become familiar with relational models and designing processes for database applications. They will be competent in creating a small database application, and they will have command of SQL language and know how to make inserted SQL inquiries using JDBC.

### *Content*

- Relational models
- ER diagram
- SQL language
- JDBC
- Inserted SQL

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Class exercises and an examination

### *Languages of Instruction*

Finnish

## **Application development, 3 op KL04BT50040 (study unit)**

### *Lecturers*

Petteri Mäkelä, MSc (Eng.)

### *Objectives*

Students will learn to create an application that comprises a graphic user–interface. The application may be linked to a database, or it may resemble data gathered through multiple channels from a measuring device.

### *Content*

- Graphic user–interface
- Inserted SQL
- Threads
- Multiple channel communication

*Literature / Study Material*

Vesterholm M. & Kyppö J. 2004. Java–ohjelmointi. Talentum Media Oy. ISBN 952–14–0849–9.

*Learning Methods*

Lectures and assignment

*Assessment*

Exercises

*Prerequisites*

- Object Programming
- Databases

*Languages of Instruction*

Finnish

## **Basics of software production, 3 op KL04BT52010 (study unit)**

*Lecturers*

Tuomo Hirvonen MSc (Eng.)

*Objectives*

Students will acquire knowledge of the main structures and elements of software production processes. They will gain insight into the practices of describing the software production process and the methods used in its various phases. Students will be able to produce specifications as required by a software project using basic elements and description types when explaining minor problems.

*Content*

- Specifications
- Types of descriptors
- Production process
- Product management
- Testing
- Documentation
- Document management

*Literature / Study Material*

Haikala & Märijärvi: Ohjelmistotuotanto. IT–kirjat. Talentum 2003.

*Learning Methods*

Lectures, exercises, and group assignment

*Assessment*

Active participation, assignment and an examination

*Languages of Instruction*

Finnish

## **Computer graphics, 4 op KL04BT51081 (study unit)**

*Lecturers*

Petteri Mäkelä, MSc (Eng.)

*Objectives*

Students will gain general understanding of computer graphics devices and methods. They will also learn to create interactive applications that utilise 2– and 3–dimensional graphics.

*Content*



- Open GL programming
- Principles of modelling
- Picture projection
- Lighting models and using color
- Graphic interactive techniques
- CAVE

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures and assignment

*Assessment*

Exam and assignment

*Prerequisites*

- C++ Programming
- Object Definition and Design
- Data Structures
- Algorithms

*Languages of Instruction*

Finnish

## **Windows systems programming, 3 op KL04BT51051 (study unit)**

*Lecturers*

Petteri Mäkelä, MSc (Eng.)

*Objectives*

Students will learn to create system programmes and graphic user–interfaces in the WIN32 environment using C++ programming language.

*Content*

- WIN32API
- Memory management
- Multitasking
- Processes
- Threads and synchronizing between threads
- Socket programming
- Dynamically downloadable libraries

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Lectures and exercises

*Assessment*

Exam and assignment

*Languages of Instruction*

Finnish

## **Software project, 5 op KL04BT52030 (study unit)**

*Lecturers*

Petteri Mäkelä, MSc (Eng.)

*Objectives*

Students will become familiar with the various phases of a software development process by taking part in the specification, designing and creation of software.

### *Content*

- Product development process
- Project management
- Product management
- Version management
- Various phases of a software development process
- Cataract model and swift software processes
- Managing a software project

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and software project in groups

### *Assessment*

Software project

### *Prerequisites*

- Windows System Programming
- Network Programming

### *Languages of Instruction*

Finnish

## **Basics of mobile programming, 5 op KL04BT50180 (study unit)**

### *Lecturers*

Petteri Mäkelä, MSc (Eng.)

### *Objectives*

Students will learn to design and implement mobile solutions using J2ME technology.

### *Content*

- Intelligent phones
- M2M
- Java MIDP
- MIDlet
- IMlet
- Programming interfaces
- SMS messaging
- http and socket communication
- Bluetooth
- GPS

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Exam and assignment

### *Prerequisites*

- Object-oriented Programming
- Data Structures and Algorithms

### *Languages of Instruction*

Finnish

## **Symbian C++, 3 op KL04BT50181 (study unit)**

### *Lecturers*

Petteri Mäkelä, MSc (Eng.)

### *Objectives*

Students learn the basics of programming intelligent phones in the Symbian OS C++ environment.

### *Content*

- Special characteristics of mobile programming
- Memory management and exceptions
- Graphic user–interfaces
- Resources
- Files
- Customer–server models

### *Literature / Study Material*

Harrison R. 2003. Symbian OS C++ for Mobile Phones. John Wiley & Sons Ltd. ISBN 0–470–85611–4.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Exam and exercises

### *Prerequisites*

- C++ Programming
- Network Programming
- Windows System Programming

## **Network programming, 5 op KL04BT53040 (study unit)**

### *Lecturers*

Petteri Mäkelä, MSc (Eng.)

### *Objectives*

Students will gain insight into client–server programming. They will learn to create random applications using various techniques.

### *Content*

- Customer–server models
- Socket programming
- http protocol
- Remote method calls
- Parallelism
- Thread synchronization

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Assignments and an examination

### *Prerequisites*

- Object Specifications and Designing
- Data Structures
- Algorithms

*Languages of Instruction*  
Finnish

## **Embedded PC systems, 3 op KL04BT40040 (study unit)**

*Lecturers*  
Heikki Palomäki

*Objectives*  
Students will learn the structure, composition and the usage possibilities of a PC-compatible, embedded system. They will also become familiar with the installations involved in the Windows and Linux operating systems, as well as the use of the I/O card in C-programming.

*Content*  
Students will create a PC104-based embedded calibration and control system. They will install the Windows and Linux operating systems on it and construct a simple calibration/control application with C-programming using analogue and digital I/O linkages. Students will work in groups.

*Literature / Study Material*

- Online material
- Independent information acquisition

*Learning Methods*  
Lectures, assignments and reports

*Assessment*  
Report

*Prerequisites*

- Embedded Systems
- Basics in Programming

*Languages of Instruction*  
Finnish

## **Server programming 1, 3 op KL04BT40042 (study unit)**

*Lecturers*  
Markku Lahti, MA

*Objectives*  
Students will be familiar with browser-independent, web-based user-interface applications and ASP.NET technology. They will also know how to utilise the services ASP.NET technology offers.

*Content*

- Principles of ASP.NET architecture
- Functions of a web form
- Web controls
- Space management
- User identification and rights
- Database programming (ADO.NET)

*Literature / Study Material*  
To be announced.

*Learning Methods*  
Lectures and exercises

*Assessment*  
Assignment and exercises

*Prerequisites*

- Basics in Programming I and II
- Databases
- Application Development

## **Laboratory assignments in electronics, 3 op KL04BT41011 (study unit)**

### *Objectives*

Students will learn to use measuring devices and software. They will understand how gauging sensors work and how to handle gauging signals. They will also know how to apply various gauging methods.

### *Content*

- Various sensor circuits: temperature, moisture, light, force, etc.
- How sensors work
- Signal amplifiers
- Gauging methods
- Sensor module connections
- Analysing measurements
- Post-processing with LabView software

### *Learning Methods*

Guided laboratory work

### *Assessment*

Assignment and reports

## **Applications in electronics, 3 op KL04BT41041 (study unit)**

### *Objectives*

Students will learn to design and construct connections with IC circuits and to calibrate and analyse how they work.

### *Content*

- Connections with operational amplifiers: various amplifier connections and active filters, regulators and oscillators
- Making test connections, calibrating and analysing them
- Writing calibration reports

### *Learning Methods*

- Lectures: 15 h
- Assignments and reports: 21 h

### *Assessment*

Calibration reports and work reports

## **Power electronics, 4 op KL04BT41020 (study unit)**

### *Lecturers*

Seppo Stenberg

### *Objectives*

Students will become familiar with the components of power electronics and connections and learn about the topologies associated with chopper circuit sources as well as measurement. They will also be introduced to the principles behind motor drives in power electronics and battery technology, as well as heat design in power electronics. EMC and regulations concerning safety and electricity will also be discussed.

### *Content*

Teaching will involve the use of guidebooks and brochures for power electronics components and component manufacturers. Students will write summaries about them, do exercises and calculations. Students will familiarise themselves with the structure of power electronics devices, and they will perform simulations and trial connections.

### *Literature / Study Material*

Online material

*Learning Methods*  
Lectures and exercises

*Assessment*  
Exercises and an examination

*Prerequisites*  
Basics in Electronics

*Languages of Instruction*  
Finnish

## **Electronic production engineering, 3 op KL04BT41050 (study unit)**

*Lecturers*  
Heikki Palomäki

*Objectives*  
Students will acquire knowledge of the various phases in the production of electronics with automatic surface mounting lines and manually operated production equipment. They will also understand the significance of considering reliability in designing circuit boards.

### *Content*

- Use of production equipment
- Entire production process of an electronic circuit with an automatic surface mounting line: proportioning the pasta, loading the components, using the oven, and controlling the conveyor
- Production of circuit boards and techniques for repair
- Reliability of electronics EMC properties

*Literature / Study Material*  
Online material, databooks, and students' own information acquisition

*Learning Methods*  
Lectures and using the production machinery

*Assessment*  
Examination and an approved report

*Prerequisites*  
Designing Circuit Boards

*Languages of Instruction*  
Finnish

## **Electronic project work, 4 op KL04BT41042 (study unit)**

*Lecturers*  
Seppo Stenberg

*Objectives*  
Students will have command of the designing, assembly and testing of analogue technology. They will be competent in working on a team.

### *Content*

- Designing the wiring for amplifiers, filters and measurement sensors
- Making circuit boards
- Assembling and testing electronic devices
- Use of passive components, transistors, operation amplifiers, sensor elements and filters in making connections

The types of electronic connections vary each year, and some of the work is carried out in company projects.

*Literature / Study Material*  
Material needed for the course will be distributed during the lessons.

### *Learning Methods*

Lectures and supervised work

### *Assessment*

Active participation in the lessons and an approved report

### *Prerequisites*

- Introduction to Electronics
- Designing Circuit Boards

## **Digital technology, 3 op KL04BT42010 (study unit)**

### *Objectives*

Students will learn to design and make digital connections using logic circuits, memory techniques and programmable circuits. They will become familiar with new semi-conductor technologies.

### *Content*

- Digital electronics
- Combination logic
- Programmable logic circuits
- Memory techniques
- Structure and function of processors
- Basics of data transfer

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, exercises and computer-aided simulation

### *Assessment*

Exercises and an examination

### *Prerequisites*

Basics of Digital Technology

### *Languages of Instruction*

Finnish

## **Signal processing, 3 op KL04BT42030 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Students will learn about the analysis and processing of signals, as well as data transmission.

### *Content*

- Signal frequency, filtering and modulation
- Digital processing of audio frequency signals
- Applications pertaining to signal processing: adaptive filtering, modification of sampling frequencies, compression of sound signals
- Brief discussion of the more common applications, e.g. speech processing, image processing and image coding

### *Literature / Study Material*

Lecture material

### *Learning Methods*

Lectures and exercises in the laboratory

### *Assessment*

Examination and laboratory exercises

*Prerequisites*

Basics in Digital Technology

*Languages of Instruction*

Finnish

**Circuit design, 3 op  
KL04BT42020 (study unit)**

*Lecturers*

Heikki Palomäki

*Objectives*

Students will understand the various phases involved in the production process of semiconductors. They will also learn about the principles associated with programming system circuits.

*Content*

- Production process of semiconductors: from silicon wafer to IC circuit
- Structure of a processor
- Programmable logic circuits
- Features of and tools for designing FPGA and ASIC circuits
- MEMS circuits
- Latest semiconductor technologies

*Literature / Study Material*

- Online material
- Data books
- Independent information acquisition

*Learning Methods*

Lectures and exercises

*Assessment*

Approved assignment and an examination

*Prerequisites*

Digital Technology

*Languages of Instruction*

Finnish

**Networks and Bus interfaces, 4 op  
KL04BT40121 (study unit)**

*Lecturers*

Heikki Palomäki

*Objectives*

Students will gain the ability to design the different sequential data transmission forms of embedded systems, including physical data transmission and the realization of a transfer connection.

*Content*

- Principles of serial data transmission, physical and data link layer: SPI, synchronous and asynchronous data transmission
- Internal networks of an embedded system: One-wire, Two-wire and SPI
- External data transmission networks: RS232, RS485 and CAN
- Data transmission protocols for transfer connections

*Literature / Study Material*

- Online material
- Data books
- Independent information acquisition



*Learning Methods*  
Lectures and exercises

*Assessment*  
Approved assignment and an examination

*Prerequisites*  
Embedded Systems

*Languages of Instruction*  
Finnish

## **Process automation, 3 op KL04BT43031 (study unit)**

*Lecturers*  
Heikki Palomäki

*Objectives*  
Students will acquire the readiness needed to design and implement a simple PC-based process control room where measurement and control activities are managed through a channel.

### *Content*

- Features and use of LabView or InTouch software
- Control room solutions for various types of processes
- Controls
- Modelling processes
- Simulation of measurements/control
- Connecting a control room to a logic network

*Literature / Study Material*  
To be announced at the beginning of the course.

*Learning Methods*  
Lectures and guided exercises

*Assessment*  
Approved assignment

*Prerequisites*  
Basics of Control Engineering

*Languages of Instruction*  
Finnish

## **Embedded PC systems, 3 op KL04BT40041 (study unit)**

*Lecturers*  
Heikki Palomäki

*Objectives*  
Students will learn about the structure, composition, and possibilities for using PC-compatible embedded systems. They will also become familiar with the installation Windows and Linux operating systems, as well as the way to use the I/O card in C-programming.

*Content*  
Students will create a PC104-based embedded calibration and control system. They will install the Windows and Linux operating systems on it and construct a simple calibration/control application with C-programming using analogue and digital I/O linkages. Students will work in groups.

### *Literature / Study Material*

- Online material
- Independent information searches

### *Learning Methods*

Lectures, assignment and reports

### *Assessment*

Report

### *Prerequisites*

- Embedded Systems
- Basics in Programming

### *Languages of Instruction*

Finnish

## **Basics of control engineering, 4 op KL04BT43021 (study unit)**

### *Objectives*

Students will be introduced to control system engineering and know how to apply the theory of regulation to control systems.

### *Content*

- Principles of control system engineering
- Transfer functions
- Control blocks in time and frequency domains
- Control circuit adjustments
- Structure and types of controls
- Electric motor technology
- Electric servo-systems
- Kinetic control

### *Literature / Study Material*

- Savolainen–Vahtinen: Sääntötekniikan perusteita.
- Handouts

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and assignment

### *Prerequisites*

Basics in Automation

### *Languages of Instruction*

Finnish

## **Digital technology, 3 op KL04BT32010 (study unit)**

### *Objectives*

Students will learn to design and make digital connections using logic circuits, memory techniques and programmable circuits. They will become familiar with new semi-conductor technologies.

### *Content*

- Digital electronics
- Combination logic
- Programmable logic circuits
- Memory techniques
- Structure and function of processors
- Basics of data transfer

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures, assignments and computer-aided simulation

### *Assessment*

Assignments and an exam

### *Prerequisites*

Introduction to Digital Technology

### *Languages of Instruction*

Finnish

## **Laboratory assignments in electronics, 3 op KL04BT33040 (study unit)**

### *Lecturers*

Tuomo Hirvonen, MSc (Eng.)

### *Objectives*

Students will acquire knowledge in calibrating electronic switches and how they work.

### *Content*

- Semi-conductor components
- Digital components
- Amplifier connections
- Digital logic circuits

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Independent learning in a computer laboratory

### *Assessment*

Completion of the required amount of laboratory work

### *Languages of Instruction*

Finnish

## **Signal processing, 3 op KL04BT42031 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Students will have command of the analysis, processing and data transmission of digital signals.

### *Content*

- Signal frequencies, filtering, and modulation
- Digital processing of a sound frequency signal
- Applications for signal processing: adaptive filtering, modification of sampling frequencies, compression of sound signals
- Brief discussion of speech processing, image processing and image coding

### *Literature / Study Material*

Lecture material

### *Learning Methods*

Lectures and practical work in the laboratory

### *Assessment*

Exam and laboratory work

### *Prerequisites*

Basics in Digital Technology

## **Networks and Bus interfaces, 4 op KL04BT40123 (study unit)**

### *Lecturers*

Heikki Palomäki, MSc (Eng.)

### *Objectives*

Students will acquire readiness in designing different serial data transfer options for embedded systems including the realization of a physical data transfer and data links.

### *Content*

- Principles of serial data transfer
- Physical and data link layers: SPI, asynchronous and synchronous data transmission
- Internal networks of embedded systems: One-wire, Two-wire and SPI
- External data transmission networks: RS232, RS485 and CAN
- Data transmission protocols for data links

### *Literature / Study Material*

- Online material
- Data books
- Independent information searches

### *Learning Methods*

Lectures and exercises

### *Assessment*

Approved assignment and an examination

### *Prerequisites*

Embedded Systems

## **Databases, 3 op KC04BT50020 (study unit)**

### *Lecturers*

Mikko Auranen, MA

### *Objectives*

Students will be familiar with the relational model and the designing process associated with database applications. They will be competent in creating a small-scale database application. They will also have command of the Structured Query Language (SQL) and how to make SQL requests through Java Database Connectivity application programming interface.

### *Content*

- Relational model
- ER diagrams
- Structured Query Language (SQL)
- Java Database Connectivity (JDBC)
- Embedded SQL

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and exercises

### *Assessment*

Classroom exercises and an examination

### *Languages of Instruction*

Finnish

## **Application development, 3 op KL04BT50041 (study unit)**

### *Lecturers*

Study Descriptions

- Hilikka Niemelä, MA
- Petteri Mäkelä, MSc (Eng.)

### *Objectives*

Students will learn to create an application that involves a graphic user–interface. The application may be connected to a database or it may be data gathered from a measuring device through a series channel.

### *Content*

- Graphic user–interface
- Inserted SQL
- Threads
- Series channel communication

### *Literature / Study Material*

Vesterholm M. & Kyppö J. 2004. Java–ohjelmointi. Talentum Media Oy. ISBN 952–14–0849–9.

### *Learning Methods*

Lectures and assignment

### *Assessment*

Assignments

### *Prerequisites*

- Object–oriented Programming
- Databases

## **Server programming 1, 3 op KL04BT40043 (study unit)**

### *Objectives*

Students will gain insight into the technologies and tools needed to create www–server applications.

### *Content*

- HTTP–protocol
- ASP.NET
- ADO.NET
- Javascript

## **Linux server, 4 op KL04BT50012 (study unit)**

### *Objectives*

Students will learn how to maintain common Linux servers.

### *Content*

- Network and server of the Linux system
- Practising basic commands
- Installing and maintaining various servers

## **Windows – Server, 4 op KL04BT50014 (study unit)**

### *Objectives*

Students learn how to use and administrate Windows servers.

### *Content*

Familiarisation with the Windows network and server.

## **Telecommunication laboratories, 3 op KL04BT53030 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc

### *Objectives*

Students will learn to build a local network and to measure the properties of the network, e.g. how well the cabling works. They will be competent in using the devices needed in local networks and in performing the duties associated with maintenance, such as monitoring network communications and troubleshooting of the network and devices.

### *Content*

Practical exercises in the laboratory

### *Literature / Study Material*

Instruction manuals for the laboratory's network and calibration devices

### *Learning Methods*

Supervised and independent work in the laboratory

### *Assessment*

Approved laboratory work

### *Prerequisites*

- Data Communications (KL04BT53011)
- Data Communications Networks and Data Security (KL04BT53011)

## **Networking, routers and routing basics, 4 op KL04BT53031 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Students will have command of the basic configuration of routers and understand the principles behind routing.

### *Content*

- Router configuration
- Router protocols and protocols to be routed
- Distance vector and Link state protocols
- Features, maintenance and use of an IOS operating system
- Static and dynamic routing
- Access lists
- HSRP protocol
- Error messages for TCP/IP addresses
- Troubleshooting

### *Literature / Study Material*

Lecture material

### *Learning Methods*

Exercises

### *Assessment*

Exam and exercises

## **WAN technologies, 3 op KL04BT53032 (study unit)**

### *Lecturers*

Alpo Anttonen, MSc (Eng.)

### *Objectives*

Students will have command of the principles, technology and designing of Wide Area Networks (WAN).

### *Content*

- WAN technologies
- PPP
- Frame Relay
- ISDN and DDR
- Troubleshooting in networks

- Kinetic tunneling and bridging
- Network administration and troubleshooting

*Literature / Study Material*  
Lecture material

*Learning Methods*  
Laboratory work and exam

# Degree Programme in International Business

## QUALIFICATION AWARDED

Bachelor of Business Administration

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The implementation of the curriculum focuses on experiential learning in a multicultural environment. Learning begins from students' concrete experiences, which they analyse and reflect upon. Self-assessment contributes to the understanding of phenomena and development of new modes of action.

Basic studies involve running a virtual enterprise, and learning is based on practical tasks. During the professional studies, emphasis is placed on increasing project activities, in the international context as well. Courses can also be completed in a simulated environment with multicultural groups and in online learning environments. In the bachelor's thesis theoretical knowledge is applied to practical problem-solving and business development.

## PROFILE OF THE PROGRAMME

The objective of the Degree Programme in International Business, which is taught in English, is to prepare students for specialised tasks in international business and marketing. The programme gives an overall picture of business management and focuses on the international operations of companies and organisations.

The operational environment of today's enterprises is based on international networks to an ever-increasing extent. Having completed their studies, students will be competent in international business operations, marketing and management. Students will engage in practical training to reinforce the theoretical knowledge they have learned in these areas during their studies.

The degree programme is based on well-founded understanding of entrepreneurship and small- and medium-sized enterprises. An important aim is to acquire good practical language skills through working and studying abroad during a period of one academic year. At the final stage of their studies, students are given an opportunity to deepen their knowledge of the business and culture of a target area of their choice in connection with their practical training and thesis work.

## KEY LEARNING OUTCOMES

In addition to the general competences common to all university of applied sciences degrees, the following competences have been specifically defined for the Degree Programme in International Business:

### *Competence in international business awareness*

A Bachelor of Business Administration

- \* is able to outline and evaluate the key patterns and trends in international business activity, the different approaches to internationalisation, the influence of increasing globalisation, international trade systems and financial relations and the role of several principal institutions (e.g. WTO, EU, IMF, World Bank) in international business.

- \* is able to evaluate the impact of trends in the international business environment on one's own activities and on business policy.

### *Competence in intercultural adaptability*

A Bachelor of Business Administration

- \* is able to evaluate the differences between national, organisational and occupational cultures and to outline strategies for adapting to these differences in e.g. human resources management, marketing and intercultural communication.

- \* is able to identify the relevant dimensions of cultures and develop self-awareness with regard to one's own cultural background.

- \* is able to adapt one's behaviour to the standards of other cultures and to maintain an international network essential to one's duties.

### *Competence in international operations management*

A Bachelor of Business Administration

- \* is able to evaluate processes and make decisions involved in developing international export/import operations, for example, and focusing on supply-chain management and to explain the meaning and application of key logistical concepts.



*Competence in international marketing management*

A Bachelor of Business Administration

- \* is able to carry out a country analysis on the macro-, micro- and industrial levels and to conduct an international market survey for evaluating foreign market opportunities and competition.
- \* is able to formulate market-entry strategies, draft an international marketing plan and to implement, co-ordinate and manage an international marketing (and sales) scheme and project.
- \* is able to create, develop and maintain profitable customer relationships.

*Competence in international strategic management*

A Bachelor of Business Administration

- \* is able to utilise the conceptual and visionary skills to contribute to the development, evaluation and implementation of the internationalisation strategy of a company.
- \* is able to pro-actively seek and commercially evaluate business opportunities for both new and existing products.
- \* understands risk-taking as a way to optimise business profit.
- \* is able to compile and defend a business plan for a (start-up) company.
- \* is able to perform a variety of cost and revenue calculations and to transform these data into information needed for decision-making and budgeting.
- \* is able to contribute to and evaluate key accounting summaries and investment opportunities.

*Competence in organisational development*

A Bachelor of Business Administration

- \* is able to research and analyse relevant international business problems, to propose policy objectives and to prepare alternative solutions to optimise business and human resource processes for strengthening the synergy between strategic, structural and cultural aspects of an organisation.

**ACCESS TO FURTHER STUDIES**

Students who have completed this programme are eligible to continue on to second-cycle higher education studies. For second-cycle studies in Finland, three years' work experience is also required. (University of applied sciences act 351/2003, in Finnish)

**COURSE STRUCTURE**

- The courses in the degree programme are available at INBUS2 2009 (1.9.2009)
- Table of competences: Degree Programme in International Business (\*.xls)

**EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

**CONTACT PERSONS**

Head of the degree programme: Ms Ritva Leppänen, tel. +358 20 124 5420, e-mail: ritva.leppanen@seamk.fi  
ECTS departmental coordinator / International coordinator: Ms Ritva Leppänen, tel. +358 20 124 5420, e-mail: ritva.leppanen@seamk.fi

## Degree Programme in International Business (1.9.2009)

### INBUS2 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
BBS	<b>BASICS OF BUSINESS STUDIES</b>					<b>66</b>
BASICSOPER	<b>Basics of business operations</b>					<b>41</b>
KD19APYR001	Setting up an enterprise	x				8
KD19APYR002	Running an enterprise	x				8
KD19APYR003	Assessing and developing an enterprise	x				8
KD19APLA011	Basics of management accounting	x				2

KD19APOI011	Basics of law	x				2
KD19APKT010	Basics of economics	x				4
KD19APMT010	Basics of business mathematics	x				4
KD19APTT011	Basics of business information technology	x				5
SKILLS	<b>Study skills and professional development</b>					<b>3</b>
KD19APOP021	Study skills and professional development 1	x				1
KD19APOP022	Study skills and professional development 2		x			1
KD19APOP023	Study skills and professional development 3				x	1
LANGUAGE	<b>Language studies</b>					<b>22</b>
KD19ALL	<b>For all students</b>					<b>10</b>
KD19APEN001	English Business communication	x				4
KD19AFOLA2	Foreign language 2	x				6
KD19FINNISH	<b>For Finnish students</b>					<b>12</b>
KD19APSU001	Business communication in Finnish	x				2
KD07AYRU022	Business Swedish (In Finnish)	x				3
KD07CYRU112	Swedish business communication (In Finnish)	x				3
KD19ALTERNA	<b>Alternative language studies</b>					<b>4</b>
KD19NONFINN	<b>For non Finnish students</b>					<b>12</b>
KD19APFIN01	Finnish 1	x				3
KD19APFIN02	Finnish 2		x			3
KD19APFIN03	Finnish 3		x			3
KD19APFIN04	Finnish 4		x			3
PROF	<b>PROFESSIONAL STUDIES</b>					<b>99</b>
INBUSMARKET	<b>International business and marketing courses</b>					<b>27</b>
KD06BNMA630	International business operations		x			5
KD06BNMA650	Cross-cultural business		x			5
KD06BNMA640	Internationalisation of the firm		x			5
KD06CNMA731	Intopia		x			6
KD06BNMA620	Business to business marketing		x			3
KD06BNMA160	Marketing management		x			3
MANAG	<b>Management courses</b>					<b>19</b>
KD07DVUL103	Strategic management		x			4
KD06BNMA660	International human resources		x			3
KD19CNHA003	Organisational Behaviour		x			3
KE16BUTU123	Logistics		x			3
KD19DVLA22	Financial management		x			3
KD19MANAG01	Current Issues in Economics			x		3
KD19ELEVTV	<b>Elective courses</b>					<b>12</b>
KD19TARGET	<b>International business studies in the target area</b>					<b>30</b>
KD19BNMA151	International Business Studies in the Target Area			x		25
KD19BNMA150	<i>Europe</i>			x		25
KD19BNMA151	<i>Gateway</i>			x		25
KD19BNMA152	<i>Japan</i>			x		25

KD19BNMA153	<i>Latin America</i>			x		25
KD19BNMA154	<i>North–America</i>			x		25
KD19BKV2002	Elective studies			x		5
RESEWORK	<b>Research work</b>					<b>11</b>
KD19APTI010	Basics of statistics	x				3
KD19BRW004	Introduction to research and writing skills		x			3
KD19BRW002	Research methods				x	3
KD19BRW003	Thesis seminar				x	2
WORKPLACE	<b>WORK PLACEMENT</b>					<b>30</b>
KD19HYTH200	International work placement			x		30
THESIS	<b>THESIS</b>					<b>15</b>
KD19FYOT200	Bachelor's thesis				x	15
KD19FYOT100	Maturity test				x	

## Study Descriptions

### Basics of business operations, 41 cr BASICSOPER (study entity)

Objectives: Students will be familiar with the establishment and operations of an enterprise. They will understand the process in which the enterprise acquires production factors and combines them in its production process and markets to acquire income. Students will understand the interaction of an enterprise with various interest groups at the regional, national and international levels. Students will perceive the financial process of an enterprise and have knowledge of the basics of accounting. Having completed the module, students will have basic knowledge of business operations, marketing, accounting, business law and economics. The module is integrated into virtual business operations in students' practical training companies.

### Setting up an enterprise, 8 cr KD19APYR001 (study unit)

#### Lecturers

- Osmo Mäkinen
- Tuulia Potka–Soininen
- Marja Salonen
- Jaana Latvala
- Cory Isaacs
- Ritva Leppänen
- Paula Takamaa

#### Objectives

After having completed the study module, students will possess the skills and tools for planning business operations. They will understand the meaning of business environment and be competent in working on multicultural teams. Students will know how to make a business plan and be familiar with the types of resources starting up an enterprise. They will become acquainted with different regulations and legislation related to establishing an enterprise. They will also be competent in acquiring information from a multitude of resources and in using basic computer programmes. Students will understand financial statements, different types of transactions, and their effects on financial statements.

#### Content

- Entrepreneurship and basic concepts of entrepreneurship
- Business Environment and analysis of business environment
- Different parts of the business plan (e.g. vision, strategies, business idea, business processes, customers, marketing competitors, financial plan, profitability, pricing)
- Teams, groups and interaction skills, multiculturalism
- Planning an organisation (organisation designs, job designs)
- Concept of marketing and marketing tasks
- Segmentation
- Incorporation procedure

- Trade register and company names
- Making an employment contract
- Introduction to computer systems at business school
- Introduction to information systems
- Internet basics
- Basics of Office systems (Word, Excel and Power Point)
- Intercultural communication competencies
- Business English communication in various business settings e.g. meetings and negotiations, communication styles
- Financial statements
- Different types of transactions and their effects on financial statements
- Stakeholder groups and their need for financial information
- Business information needs and business information sources

#### *Literature / Study Material*

- Kubr Thomas et al. 1998. Starting up. Achieving success with professional business planning, McKinsey & Company.
- Isaacs et al. 2009. Engineer Your English, Edita Publishing, Helsinki
- Kewin. 2007. Networking Cultural Knowledge, WSOY.
- Kotler P., Armstrong G., Saunders J. & Wong V. 2008. Principles of Marketing.
- Harrison–Horngren. 2008. Financial Accounting. Pearson Education: New Jersey.
- Surakka. 2005. Access to Finnish Law. WSOY.
- Hogan. 2009. Practical Computing. Prentice Hall.
- Other material distributed by the lecturer.

#### *Learning Methods*

- Working in an enterprise
- Lectures
- Assignments
- Portfolio
- Journal

#### *Assessment*

- Business plan
- Examination
- Journal

#### *Languages of Instruction* English

#### *Further Information*

Depending on the assignments for mentoring companies the course may incur R&D points.

## **Running an enterprise, 8 cr KD19APYR002 (study unit)**

#### *Lecturers*

- Osmo Mäkinen
- Tuulia Potka–Soininen
- Marja Salonen
- Cory Isaacs
- Ritva Leppänen
- Paula Takamaa

#### *Objectives*

Upon completion of the course, students will be familiar with running business operations. They will be familiar with the basic financial management operations included in business operations and the prerequisites for profitable business activities. Students will be competent in planning and initiating marketing operations and know how to use business communication in marketing. They will also be competent in performing their job–related duties in a service–oriented manner. Students will be aware of the importance of human resources management as part of a company's operations and be able to plan an organisation to suit a target company. They will be competent in utilising data processing networks and the Internet.

#### *Content*

- Development of processes
- Human Resource Management
- Control system and strategic planning
- Customer service
- Exhibitions and marketing materials
- Principles of marketing mix
- Accounting principles and concepts
- Accounting equations
- Double-entry accounting
- Income statements and balance sheets
- Recording business transactions
- Accrual accounting
- Funding
- Making contracts
- Demand for payment
- Use of financial software in the enterprise
- Web pages for the enterprise
- Interaction skills in multicultural environment
- Business English communication in various settings e.g. fairs and exhibitions, presentations, describing products

#### *Literature / Study Material*

- Kubr et al. 1998 Starting up. Achieving success with professional business planning, McKinsey & Company.
- Isaacs et al. 2009. Engineer Your English. Edita Publishing: Helsinki.
- Kewin. 2007. Networking Cultural Knowledge. WSOY.
- Kotler P., Armstrong G., Saunders J. & Wong V. 2008. Principles of Marketing.
- Harrison–Horngren. 2008. Financial Accounting. Pearson Education: New Jersey.
- Surakka. 2005. Access to Finnish Law. WSOY.
- Hogan. 2009. Practical Computing. Prentice Hall.
- Other material distributed by the lecturer.

#### *Learning Methods*

- Working in an enterprise
- Lectures
- Assignments
- Portfolio
- Journal

#### *Assessment*

- Exams
- Group work
- Journal

#### *Languages of Instruction*

English

#### *Further Information*

Depending on the assignments for mentoring companies the course may incur R&D points.

## **Assessing and developing an enterprise, 8 cr KD19APYR003 (study unit)**

#### *Lecturers*

- Osmo Mäkinieniemi
- Tuulia Potka–Soininen
- Marja Salonen
- Cory Isaacs
- Ritva Leppänen
- Paula Takamaa

#### *Objectives*

Upon completion of the course, students will understand the concept of profitable business and be able to analyse a company's financial status. They will be competent in comparing the outcomes of business activities with the business plan. Students will be aware of the need for the continuous development of an enterprise and the impacts changes in the

business environment have on business operations. They will also understand the importance of planning in marketing as well as the purpose and reason for planning for future activities. Students will be able to evaluate their own performance and the performance of a group.

### *Content*

- Development of information systems in an enterprise
- Ergonomics
- Computer security
- Accounting adjustments
- Closing the books and financial statements
- Analysing financial performance and position
- Utilising financial information
- Ethical issues
- Internal control
- Developing marketing and marketing plans
- Life cycle and personal strategy of an enterprise
- Business English communication in various settings

### *Literature / Study Material*

- Kubr et al. 1998. Starting up. Achieving success with professional business planning. McKinsey & Company.
- Isaacs et al. 2009. Engineer Your English. Edita Publishing: Helsinki.
- Kotler P., Armstrong G., Saunders J. & Wong V. 2008. Principles of Marketing.
- Harrison–Horngren. 2008. Financial Accounting. Pearson Education: New Jersey.
- Surakka. 2005. Access to Finnish Law. WSOY.
- Hogan. 2009. Practical Computing. Prentice Hall.
- Other material distributed by the lecturer.

### *Learning Methods*

- Working in an enterprise
- Lectures
- Assignments

### *Assessment*

- Exams
- Journal
- Group work
- Portfolio
- Self–evaluation
- Peer evaluation

### *Languages of Instruction* English

### *Further Information*

Depending on the assignments for mentoring companies the course may incur R&D points.

## **Basics of management accounting, 2 cr KD19APLA011 (study unit)**

### *Lecturers*

To be announced at a later date.

### *Objectives*

Students will be familiar with the basics of accounting and its purposes and how they can utilise it in a company. They will understand the role of internal accounting in a company.

### *Content*

- Contribution margin calculation
- Cost accounting
- Profitability calculations and ratios

### *Literature / Study Material*

Atkinson, Kaplan, Matsumura & Young. 2007. Management Accounting.

*Learning Methods*  
Lectures and exercises

*Assessment*  
Examination

*Languages of Instruction*  
English

## **Basics of law, 2 cr KD19APOI011 (study unit)**

*Lecturers*  
Marja Salonen, Master of Laws

*Objectives*  
The aim of the course is to learn about the Finnish judicial system and the legal concepts associated with it. Students will become familiar with the various types of companies in Finland, contractual law and civil procedure. Upon completion of the course, students will master the essential legal concepts, know how to draw up a contract, master the main aspects of the various types of companies in Finland and understand the civil procedure in Finland.

*Content*

- Finnish judicial system and the legal concepts
- Contract Law
- Forms of enterprise

*Literature / Study Material*

- Surakka. 2005. Access to Finnish Law. WSOY.
- Various learning methods

*Learning Methods*  
Lectures and exercises

*Assessment*  
Written exam

*Languages of Instruction*  
English

## **Basics of economics, 4 cr KD19APKT010 (study unit)**

*Lecturers*  
Jorma Imppola, MSc (Eng.)

*Objectives*  
Students will be familiar with the basic concepts of national economics and economic systems as well as with economic thinking and interdependencies. Upon completion of the course, students will understand the main concepts of national economics, know how to use economic statistics, be familiar with different forms of competition, understand economic growth, inflation and monetary policy, interdependencies between long-term interest and currency rates, and be familiar with the causes and effects of economic cycles.

*Content*

- Basics of microeconomics: demand, supply, consumer, enterprise, market, competition
- Concepts associated with national income: formation of national income, consumption, investments, saving, money, banks and financial institutions, economic cycles, economic growth, economic systems

*Literature / Study Material*  
To be announced at a later date.

*Learning Methods*  
Lectures and exercises (individual tasks and group assignments)

*Assessment*  
The course grade consists of two parts: examination 70 % and exercises 30 %. Both parts must be approved.

*Languages of Instruction*

English

**Basics of business mathematics, 4 cr  
KD19APMT010 (study unit)**

*Lecturers*

Toni Purontaka

*Objectives*

Students will be competent in solving mathematical problems in the field of business.

*Content*

- Percentage calculation and its applications
- Indices, interest calculation and its applications
- Compound interest calculations
- Currencies, credit
- Investment calculations

*Literature / Study Material*

To be announced at a later date.

*Learning Methods*

Independent practice, lectures and exercises

*Assessment*

Examination: grading is based on a scale of 1–5.

*Languages of Instruction*

English

**Basics of business information technology, 5 cr  
KD19APTT011 (study unit)**

*Lecturers*

Osmo Mäkinen, MSc

*Objectives*

Students will understand the basic concepts of information technology, know the structure, operations and peripherals of a computer as well as the various uses of a computer, especially in small- and medium-sized enterprises (SME). Students will have command of the operating system of a microcomputer and know how to make a use of different tool programs and the Internet. They will be competent in writing standard business documents.

*Content*

- Impact of information technology
- Information systems in SMEs
- Data presentation
- Hardware and software
- Local area networks and the Internet
- Operating systems
- Tool programs
- Ergonomics
- Computer security

*Literature / Study Material*

- Material distributed by the teacher
- Online material

*Learning Methods*

Lectures and exercises on a computer

*Assessment*

- Examination (80%),
- Exercises, attendance and other activeness (20%)



- Grades 1–5

*Languages of Instruction*  
English

## **Study skills and professional development 1, 1 cr KD19APOP021 (study unit)**

*Lecturers*  
Head of degree programme and supervising teachers

*Objectives*  
Students will be familiar with the UAS learning environment and community, degree programmes, learning methods and course regulations. They will be able to plan their personal study plan and develop their own methods of learning.

*Content*

- UAS as a learning environment
- Student support services such as health care, student office, library. etc.
- Learning methods and assessment of one's own learning
- Planning a personal study plan
- Adjusting to a multicultural learning environment

*Literature / Study Material*  
Study guides and other material provided by the teacher

*Learning Methods*  
Active participation and assignments

*Assessment*  
Pass/fail

*Languages of Instruction*  
English

## **Study skills and professional development 2, 1 cr KD19APOP022 (study unit)**

*Lecturers*  
Head of degree programme and supervising teachers

*Objectives*  
Students will create their personal study plan on the basis of the professional orientation. They will be aware of their responsibility as learners and later as active and influential members of a work community. Students will plan their third-year studies abroad: select the study place/country and be prepared to find a job placement that is relevant to their professional growth. They may also find a topic for their thesis during their practical training period.

*Content*

- Creating a personal study plan
- Job placement training
- Becoming familiar with tasks and professional characteristics of the field
- Becoming familiar with research and development

*Learning Methods*  
Active participation and assignments

*Assessment*  
Pass/fail

*Languages of Instruction*  
English

## **Study skills and professional development 3, 1 cr KD19APOP023 (study unit)**

*Lecturers*  
Head of degree programme, supervising teachers and international coordinator

*Objectives*

During their practical training, students will search for a thesis topic that supports their professional development. They will evaluate the how well they have succeeded in carrying out their personal study plan. Upon completion, students will have the knowledge and skills they need to seek various job positions in the working world, both locally and globally. They will be competent in presenting their expertise, including that of an intercultural context, when applying for a job.

*Content*

- Assessment of the implementation of the personal study plan
- Job application training / intercultural aspects included
- Qualifications and job titles in the field of international business

*Literature / Study Material*

Material provided by the teacher

*Learning Methods*

Active participation and assignments

*Assessment*

Pass/fail

*Languages of Instruction*

English

## **Language studies, 22 cr LANGUAGE (study entity)**

Finnish students are required to study a minimum of:

- English, 4 credits
- Swedish, 6 credits
- Finnish, 2 credits, Business Communication in Finnish, Suomenkielinen liikeviestintä
- Foreign language 2, 6 credits
- alternative language studies, 4 credits

Foreign students are required to study a minimum of:

- English, 4 credits
- Finnish, 12 credits
- Foreign language 2, 6 credits

Please notice that elective studies may also include in language studies.

## **For all students, 10 cr KD19ALL (study entity)**

Both foreign and Finnish students are required to study English Business Communication (4 cr) and select a foreign language, Spanish or French, and to study two 3–credit courses in languages.

## **English Business communication, 4 cr KD19APEN001 (study unit)**

*Lecturers*

Cory Isaacs MSc (Econ.)

*Objectives*

The aim of the course is to teach students to communicate in various business settings. Students learn how to use formal English in international business activities and become aware of cultural differences. Students also become aware of social skills, proper business behavior and non-verbal communication. This course will go deeper into some of the topics covered in the course Setting up an Enterprise.

*Content*

- Communication styles
- Meetings and negotiations
- Presentations
- Trade fairs and exhibitions
- Purchasing process

- Describing products
- Logistics: transportation
- Logistics: supply chain
- Processes and project management
- Internationalisation
- Telephone English
- Writing e-mails

#### *Literature / Study Material*

- Isaacs et al. 2009. Engineer Your English. Edita Publishing: Helsinki.
- Other material distributed by the lecturer

#### *Learning Methods*

Lectures, group work, presentation and written assignment

#### *Assessment*

Presentation, written assignment and a final exam

#### *Languages of Instruction*

English

### **Foreign language 2, 6 cr KD19AFOLA2 (study unit)**

#### *Further Information*

Students are required to choose a foreign language, Spanish or French, and to complete 6 credits in the language they have chosen.

### **Business communication in Finnish, 2 cr KD19APSU001 (study unit)**

#### *Lecturers*

To be announced later

#### *Objectives*

Opiskelija on perehtynyt yritysviestinnän teoriaan ja käytäntöihin. Opintojakson suoritettuaan opiskelija: pystyy toimimaan tarkoituksenmukaisesti yritysten viestintä- ja vuorovaikutustilanteissa; osaa ottaa huomioon vastaanottajan, tilanteen ja alan vaatimukset; osaa viestiä jäsentyneesti, ymmärrettävästi ja vakuuttavasti; haluaa kehittää viestintätaitojaan osana omaa ammattitaitoaan.

#### *Content*

Yritysviestinnän peruskäsitteet; hyvän tekstin ominaispiirteet; tekstilajit mm. liikekirjeet, raportit, työnhaun tekstit; kokous- ja neuvottelutaidon perusteet; esiintymistaidon perusteet; tiedottaminen

#### *Literature / Study Material*

Kortetjärvi –Nurmi, Kuronen & Ollikainen (2002): Yrityksen viestintä

#### *Learning Methods*

Luennot ja harjoitukset

#### *Assessment*

Opintojakson arviointi muodostuu kahdesta osasta: tentti 50 % ja harjoitukset 50 %. Kummatkin osiot on suoritettava hyväksyttävästi.

#### *Languages of Instruction*

Finnish

#### *Further Information*

### **Business Swedish (In Finnish), 3 op KD07AYRU022 (study unit)**

#### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus.Adm.)

#### *Objectives*

Students will have competence in using Swedish, both in writing and verbally, in ordinary and field-related situations.

They will possess skills and terminology in obtaining and utilising field-related information. They have a positive attitude towards Swedish language learning. Upon completion of the course, students will

- be competent in obtaining field-related information in Swedish,
- be competent in telling about themselves, their education and job experience in Swedish,
- be competent in making telephone calls and writing e-mails in Swedish,
- be competent in telling about their work environment, functioning as a representative of their company and telling about a company's product range,
- know how to communicate in a customer-oriented way in customer-service and consultation situations.

#### *Content*

- Telling about oneself and one's education
- Job seeking, interviews, CVs
- Describing one's work environment, conditions and duties
- Describing a company and its operations
- Small talk
- Telephone conversations and electronic communication
- Meetings, giving consultation and opinions and arguing in favour of those opinions
- Verbal customer-service situations
- Presentation of products

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

- Oral exercises: dialogues, group discussions and presentations
- Written assignments and listening comprehension
- Programme-specific tasks

#### *Assessment*

- Active participation in contact teaching
- Active use of oral skills (oral presentations and dialogues)
- Written exercises and assignments
- Exam

All parts must be successfully completed to receive a grade for the course.

#### *Prerequisites*

Command of the basic structures of Swedish

#### *Languages of Instruction*

Finnish and Swedish

#### *Further Information*

Depending on the degree programme, students may achieve credit for research and development.

## **Swedish business communication (In Finnish), 3 op KD07CYRU112 (study unit)**

#### *Lecturers*

Päivi Seppälä, MSc (Econ.& Bus. Adm.)

#### *Objectives*

Students will have both written and oral competence in Swedish and be able to obtain and utilise field-related information and mediate it to others. Upon completion of the course, students will

- be competent in creating and maintaining business relations in Swedish.
- be able to write e-mails and business-related documents in Swedish,
- be competent in using tools to look for information from various sources in Swedish, and
- be familiar with the differences in the business cultures in Finland and Sweden.

#### *Content*

- Messages and documents, e.g. enquiries and invitations to tender, offers, orders and complaints (in writing and verbally)

- Differences between the business cultures in Finland and Sweden
- Initiating and maintaining communication related to business relationships, e.g. fairs, company guests

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

- Oral exercises: dialogues, group discussions and presentations
- Written assignments
- Listening comprehension
- Degree-specific learning methods

#### *Assessment*

- Active participation in contact teaching
- Active use of oral skills (oral presentations and dialogues)
- Written exercises and assignments
- Exam

All parts must be successfully completed to receive a grade for the course.

#### *Prerequisites*

Business Swedish

#### *Languages of Instruction*

Finnish and Swedish

#### *Further Information*

Students may receive credit for research and development depending on their degree programme.

### **Alternative language studies, 4 cr KD19ALTERNA (study entity)**

Finnish students are required to have alternative language studies, 4 credits. The students can choose the studies among elective courses or participate in language studies while studying abroad.

### **For non Finnish students, 12 cr KD19NONFINN (study entity)**

Non-Finnish students are required to study 12 credits worth of the Finnish language.

### **Finnish 1, 3 cr KD19APFIN01 (study unit)**

#### *Lecturers*

Sirkka Nieminen

#### *Objectives*

Students will learn basic vocabulary, grammar and phrases in the Finnish language. Upon completion of the course, students will be able to tell and write about themselves using simple expressions and to communicate in simple everyday situations. Furthermore, students will be acquainted with Finland as a country and also have a better understanding of the Finnish way of life.

#### *Content*

This course provides students with an introduction to Finland and the Finnish language:

- Greetings
- Introducing and telling about oneself, family and home
- Expressions of time and weather
- Basic vocabulary (e.g. numbers)
- Simple everyday situations, e.g. shopping and asking about prices (Level A1)
- Basic information about Finland

#### *Literature / Study Material*

- White. 2007. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.
- Portraying Finland 2008. Helsinki: Otava.

- Online material given in the beginning of the course

#### *Assessment*

- Active participation in lessons
- Written exercises
- Exam

#### *Languages of Instruction*

English

### **Finnish 2, 3 cr KD19APFIN02 (study unit)**

#### *Lecturers*

Sirkka Nieminen

#### *Objectives*

Students will gain more confidence in using Finnish in simple, everyday situations, such as ordering food and drinks in a restaurant or telling about their daily lives. They will extend their knowledge of basic vocabulary, grammar and typical structures of the Finnish language. They will be able to understand slow, clear speech and main contents of written text concerning the topics of the course. Upon completion of the course, students will be able to tell and write about themselves using simple expressions and to communicate in simple, everyday situations. They will also learn more about the Finnish way of life.

#### *Content*

Students will be able to communicate in everyday situations, e.g.:

- Simple, everyday situations, e.g. ordering food and drinks in restaurant
- Telling about their daily lives and hobbies
- Asking directions

Students will be able to communicate in everyday situations about the topics of the course. (Level A1)

#### *Literature / Study Material*

- White. 2007. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.
- Portraying Finland 2008. Helsinki: Otava.
- Online material given in the beginning of the course

#### *Assessment*

- Active participation in lessons
- Written exercises
- Exam

#### *Languages of Instruction*

English

### **Finnish 3, 3 cr KD19APFIN03 (study unit)**

#### *Lecturers*

Sirkka Nieminen

#### *Objectives*

Students will gain more confidence in using Finnish in simple, everyday situations, such as telling about their daily lives, work and travelling. They will extend their knowledge of basic vocabulary, grammar and typical structures of the Finnish language. They will be able to understand slow, clear speech in everyday situations and the main contents of written text about the topics of the course. They will also get further acquainted with the Finnish way of life.

#### *Content*

Students will be able to communicate in everyday situations, e.g.:

- Telling about places and explaining directions in daily life, travelling
- Telling about their likes and dislikes
- Telling about work

Students will be able to communicate in everyday situations about the topics of the course. (Level A1)

#### *Literature / Study Material*

- White. 2007. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.
- Portraying Finland 2008. Helsinki: Otava.
- Online material given in the beginning of the course

#### *Assessment*

- Active participation in lessons
- Written exercises
- Final exam

#### *Languages of Instruction*

English

### **Finnish 4, 3 cr KD19APFIN04 (study unit)**

#### *Lecturers*

Sirkka Nieminen

#### *Objectives*

Students will gain more confidence in using Finnish in everyday situations. They will extend their knowledge of vocabulary, grammar and structures of the Finnish language. They will be able to understand slow, clear speech in everyday situations and the main contents of written text concerning the topics of the course.

#### *Content*

Students will be able to communicate in everyday situations about the topics of the course. (Level A2)

#### *Literature / Study Material*

White. 2007. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.

#### *Assessment*

- Active participation in lessons
- Written exercises
- Final exam

#### *Languages of Instruction*

English

### **PROFESSIONAL STUDIES, 99 cr PROF (study entity)**

Objectives: Students will become acquainted with the international business environment. This includes the cultural environment and operational modes of international business, as well as issues pertaining to management and marketing. Upon the completion of this study module, students will be competent in planning, executing and evaluating business operations in the international business environment with special expertise in chosen fields of management and/or marketing.

### **International business operations, 5 cr KD06BNMA630 (study unit)**

#### *Lecturers*

Paula Takamaa, MSc (Econ. & Bus. Adm.)

#### *Objectives*

Students will be familiar with the various forms and modes of international business operations, their advantages and disadvantages particularly from the viewpoint of small and medium-sized companies.

#### *Content*

- Exporting, licensing, franchising
- Direct foreign investments
- Pros and cons of mentioned forms of business

*Literature / Study Material*

To be announced at a later date.

*Learning Methods*

Lectures and groupwork

*Assessment*

To be announced at a later date.

*Prerequisites*

Introduction to Business

*Languages of Instruction*

English

**Cross-cultural business, 5 cr  
KD06BNMA650 (study unit)**

*Lecturers*

Cory Isaacs, MSc (Econ. & Bus. Adm.)

*Objectives*

Students will understand the dynamics of cross-cultural interaction in business contexts and acquire skills in confronting various cultures and culture shock in professional environments.

*Content*

- Business etiquette
- Export marketing
- Intercultural communication
- Negotiations in business
- National characteristics

*Literature / Study Material*

Gesteland Richard R. Cross-Cultural Business Behavior Copenhagen Business School Press. Online EBRARY book, 374 pages

*Learning Methods*

Lectures and group work

*Assessment*

Scale 1–5

*Prerequisites*

Intercultural Communication: 2 cr

*Languages of Instruction*

English

**Internationalisation of the firm, 5 cr  
KD06BNMA640 (study unit)**

*Lecturers*

Jukka-Pekka Luostarinen, MSc (Econ. & Bus. Adm.)

*Objectives*

Students will understand the dynamics and strategies of internationalising a company, particularly from the viewpoint of an SME.

*Content*

The course involves discussion of the strategies for internationalising companies.

*Literature / Study Material*

To be announced at a later date.

*Learning Methods*

Lectures and groupwork



*Assessment*

To be announced at a later date.

*Prerequisites*

Introduction to Business

**Intopia, 6 cr  
KD06CNMA731 (study unit)**

*Lecturers*

- Ville–Pekka Mäkeläinen, LSc (Tech.)
- Sirkku Rantalainen, MSc (Econ. & Bus. Adm.)
- Tuulia Potka–Soininen MSc(Econ. & Bus. Adm.)

*Objectives*

Students will understand the practical, strategic management issues pertaining to a multinational company via a computerized business simulation program. Students will receive a comprehensive and integrated view of various management disciplines such as marketing, finance, production, administration and logistics.

*Content*

The course involves discussions of international business in the following areas:

- Marketing
- Finance
- Production
- Administration
- Logistics

*Literature / Study Material*

Literature and instructions for the Intopia business simulation programme

*Learning Methods*

Lectures and groupwork in the simulation environment

*Assessment*

Tests, reports, Intopia simulation process and presentations

*Prerequisites*

Introduction to Business

*Languages of Instruction*

English

**Business to business marketing, 3 cr  
KD06BNMA620 (study unit)**

*Lecturers*

Ville–Pekka Mäkeläinen, LSc (Tech.)

*Objectives*

Students will be familiar with the dynamics of buyer–seller interactions and inter–company networks and their significance in business–to–business marketing.

*Content*

- Relations marketing and its role in B–to–B marketing
- Formation of competitive advantage in B–to–B markets
- Organizational purchasing behaviour
- Diffusion process of innovations
- Segmentation in B–to–B markets

*Literature / Study Material*

Material distributed by the lecturer

*Learning Methods*

Lectures and groupwork

*Assessment*

To be announced at a later date.

*Prerequisites*

Introduction to Business

*Languages of Instruction*

English

**Marketing management, 3 cr  
KD06BNMA160 (study unit)**

*Lecturers*

Cory Isaacs, MSc (Econ. & Bus. Adm.)

*Objectives*

Students will learn about practical strategic marketing management and theoretical tools for strategy and marketing planning.

*Content*

- Building customer satisfaction, analysing marketing opportunities, market information and demand, consumer markets and buying behaviour
- Business markets and buying behaviour, analysing industries and competitors, identifying market segments, selecting target markets, differentiating and positioning the market offering
- Managing life-cycle strategies

*Literature / Study Material*

Kotler & Keller: Marketing Management, 13th edition.

*Learning Methods*

Lectures and group exercises (during lessons), as well as a report and presentation

*Assessment*

Report, presentation and evaluation, as well as group exercises during lessons

*Prerequisites*

Introduction to Business

*Languages of Instruction*

English

**Strategic management, 4 cr  
KD07DVUL103 (study unit)**

*Lecturers*

Prof. Dr. Thomas Lauer (Hochschule Aschaffenburg)

*Objectives*

Students will understand the strategic planning process and the most important methodologies used in strategic planning. They also will execute the methodologies using case studies.

*Content*

The lecture teaches students how to use the most important methodologies of strategic management along the typical steps of the strategic process chain: strategic analysis, conceptualisation and strategic control. Students will be introduced in theory and in practice to instruments such as environmental scans, early warning systems, core competence analysis, SWOT, portfolio analysis, life-cycle analysis, blue ocean methodology and balanced scorecard. A set of international case studies will be used for the practical exemplification.

*Learning Methods*

Lecture with case studies

*Assessment*

Written test of about 3 hours: questions based on a case study.

*Languages of Instruction*

English

## **International human resources, 3 cr KD06BNMA660 (study unit)**

### *Lecturers*

Cory Isaacs, MSc (Econ. & Bus. Adm.)

### *Objectives*

Students will acquire knowledge of the challenges of international human resource management and of the ways of creating a successful human resource policy for an international company.

### *Content*

- Challenges of international human resource management
- Recruitment, selection, training, compensation, performance appraisal
- Adjustment and repatriation of international employees
- Internationalisation process of companies, and human resource issues

### *Literature / Study Material*

Harzing A–W. & Ruysseveldt J–V. 2004. International Human Resource Management.

### *Learning Methods*

Lectures and group exercises during lessons, report and presentation

### *Assessment*

Report, presentation and evaluation, as well as group exercises during lessons

### *Prerequisites*

Introduction to Business

### *Languages of Instruction*

English

## **Organisational Behaviour, 3 cr KD19CNHA003 (study unit)**

### *Lecturers*

To be announced at a later date.

### *Objectives*

Students will be competent in accepting responsible duties as a member of an organisation, both as an individual and as a team member. They will be familiar with the fundamentals of organisational behaviour and the factors affecting it. Students will understand the significance of social skills, and they will be competent in managing and developing their own social skills. Students will also possess good team work skills.

### *Content*

Basics of organisational behaviour:

- The individual in an organization
- Motivation, job satisfaction
- Groups, teams and team–work
- Organisational structure
- Management and leadership skills
- Communication skills

### *Literature / Study Material*

- Robbins & Judge, Essentials of Organizational Behavior, Prentice Hall 9th edition

### *Learning Methods*

- Lectures
- Group work
- Exam

### *Assessment*

- Exam, group work
- Scale 1–5

*Languages of Instruction*

English

**Logistics, 3 cr  
KE16BUTU123 (study unit)**

*Lecturers*

Jorma Imppola, MSc (Eng.)

*Objectives*

The course deepens students' knowledge of logistics and how to plan logistics, customer service, and recycling. Upon completion of the course, students will possess a comprehensive picture of materials flows and their optimal planning and control with regard to both functional and economical aspects. Furthermore, students will have knowledge of logistics research.

*Content*

- Transportation and its significance, logistic chain and distribution
- Transportation planning and transportation risk management
- Packing
- Inventories and their economical and functional significance
- Physical storage, the connection between storage and transportations
- Significance, agility and costs of customer service
- Customer service strategies and service pricing
- Logistics and recycling

*Literature / Study Material*

- Lecture materials
- Other materials announced by the lecturer

*Learning Methods*

- Lectures
- Independent study
- Writing assignment which is presented at the seminar during the last session

*Assessment*

- Examination: 50 %
- Writing assignment and seminar presentation: 50 %

*Languages of Instruction*

English

**Financial management, 3 cr  
KD19DVLA22 (study unit)**

*Lecturers*

Palomäki Juhani, MBA

*Objectives*

Upon completion of the course, students will understand accounting management in theory and in practice and corporate finances with an emphasis on long-term financing. Students will be competent in utilising accounting information as a tool in decision-making pertaining corporate finances and in managing the performance of an organisation.

*Content*

Primary emphasis in the course includes:

- Identification and measurement
- Cost-volume-profit analysis
- Long-term financial policy
- Financial structure
- Valuation of stocks and bonds
- Investments and financial decisions
- Options

*Literature / Study Material*

- Brealey, Myers & Allen: Principles of Corporate Finance.
- Material provided by the lecturer

#### *Assessment*

Examination and homework

#### *Languages of Instruction*

English

### **Current Issues in Economics, 3 cr KD19MANAG01 (study unit)**

#### *Further Information*

The course will take place during the last semester of students' studies and will focus on current issues in economics. More detailed information will be available during the studies.

### **Elective courses, 12 cr KD19ELEVTV (study entity)**

Students select courses in the IP programme or from the selection of fourth-semester courses e.g.

- Japanese Economy, 2cr
- Japanese Business Management, 2cr
- Chinese Business, 2cr
- Business in the Baltic Area Seminar, 3cr
- Business in the Mercosur Area Seminar, 3cr
- Distribution Channel Management, 2cr
- Operations Management, 3cr
- Management of Information Systems, 5cr
- Marketing Communication in a Multicultural Environment, 3cr
- Export and Import Operations, 3cr

Please note that the courses may change depending on visiting professors.

### **Gateway, 25 cr KD19BNMA151 (study unit component)**

#### *Further Information*

Study period in Kauhava Gateway Programme, [www.seamk.fi/Gateway](http://www.seamk.fi/Gateway)

### **Europe, 25 cr KD19BNMA150 (study unit component)**

#### *Further Information*

Study period in one of the European partner universities.

### **Japan, 25 cr KD19BNMA152 (study unit component)**

#### *Further Information*

Study period in one of the Japanese partner universities.

### **Latin America, 25 cr KD19BNMA153 (study unit component)**

#### *Further Information*

Study period in one of the Latin-American partner universities.

### **North-America, 25 cr KD19BNMA154 (study unit component)**

#### *Further Information*

Study period in one of the North-American partner universities.

## **Elective studies, 5 cr KD19BKV2002 (study unit)**

### *Further Information*

Language and culture or research studies in the target area. Project assignment for a Finnish company is also recommended.

## **Basics of statistics, 3 cr KD19APT010 (study unit)**

### *Lecturers*

Päivi Borisov, MSc (Econ.)

### *Objectives*

Students will acquire knowledge in the concepts of statistics and how to collect, process, analyse and present information.

### *Content*

The course comprises basic concepts:

- Collecting information, sampling methods
- Scales of measurement
- Frequency distributions, graphic presentation, parameters
- Correlation and regression

### *Literature / Study Material*

To be announced at a later date.

### *Learning Methods*

Lectures, exercises (also on a computer, SPSS and Excel) and independent practice

### *Assessment*

Written examination and exercises

### *Languages of Instruction*

English

### *Further Information*

The course will incur 3 R&D points.

## **Introduction to research and writing skills, 3 cr KD19BRW004 (study unit)**

### *Lecturers*

To be announced at a later date.

### *Objectives*

Students will possess knowledge of the fundamentals of research work and research processes. They will be capable of reporting the results of their research or development project.

### *Content*

The course comprises three parts, all of which must be successfully completed to receive a grade for the course.

- Research work, introduction to research and development work: research topic, research process, principal methods
- Review of information acquisition: participation in information acquisition workshops (4 h) in which students seek thesis-related information with guidance by the teacher

### Academic writing

- Requirements of scientific writing, academic style, language form, process writing, use of sources, citation, structure of the thesis

### *Literature / Study Material*

Seinäjoki University of Applied Sciences: Instructions for Writing a Thesis

### *Learning Methods*

- Lectures
- Exercises
- Workshops
- Reports

#### *Assessment*

- Pass/fail
- Active participation
- Completed assignments
- Exam

#### *Languages of Instruction*

English

### **Research methods, 3 cr KD19BRW002 (study unit)**

#### *Lecturers*

To be announced at a later date.

#### *Objectives*

Students will be familiar with the basic research methods. They will know how to process research material using statistical applications and to interpret and report the results. Students will be competent in compiling a qualitative research plan, gathering the required material and analysing it using various techniques. They will understand the difference between research work and a development project. They will also be familiar with the objectives and methods involved in development work.

#### *Content*

- Practice using SPSS software and statistical methods suitable for the research material of the students participating in the course
- Special features of qualitative research, process and methods
- Purpose of development work, methods for the implementation of a development project, reporting and evaluation of the project

#### *Literature / Study Material*

To be announced by the lecturer.

#### *Learning Methods*

Lectures, exercises and an assignment

#### *Assessment*

- Participation in lectures, exercises and assignment
- Pass/fail

#### *Languages of Instruction*

English

#### *Further Information*

The course will incur 3 R&D points.

### **Thesis seminar, 2 cr KD19BRW003 (study unit)**

#### *Lecturers*

To be announced at a later date.

#### *Objectives*

Students will present their research topic and research results and learn to assess the research process of other students.

#### *Content*

Seminar work: discussion of research topics and research results in a group

#### *Assessment*

Pass/fail

### *Languages of Instruction*

English

## **International work placement, 30 cr KD19HYTH200 (study unit)**

### *Lecturers*

Practical training supervisor or head of the degree program

### *Objectives*

Students will become familiar with the tasks, practices and culture(s) of their professional field in an international working environment. They will learn to apply what they have learned to situations in practice. They will also acquire an overall picture of the activities of the organisation or business where they are placed. The practical training provides students with the opportunity to obtain ideas and/or topics for their final thesis.

### *Content*

- Application for placement
- Practical training in an international context
- Reporting (before, during, and after the training period)
- Seminar

### *Learning Methods*

Learning-by-doing and compiling reports

### *Assessment*

Pass/fail

### *Languages of Instruction*

English

## **Bachelor's thesis, 15 cr KD19FYOT200 (study unit)**

### *Objectives*

The bachelor's thesis can be done individually or as a part of a larger research or development project. The aim of the thesis is to determine how well students apply the theoretical knowledge they have acquired during their studies. During the thesis process, students practice problem-solving skills, acquire knowledge of project work, utilise scientific thinking skills, carry out independent information retrieval, and report research results. Student must present the results of their research logically using correct language and professional terminology. The thesis process also allows students to be creative, to experiment and use innovative applications.

### *Content*

Students are responsible for the choice of topic, which they often find during their practical training. Students discuss their choice of topic with their advisor for approval. Students must keep in touch with their advisor throughout the thesis process. Students present their research plan (and the completed work) at a seminar. The thesis is accompanied by a Maturity Test in which students must demonstrate their command of the subject and their ability to use language clearly and consistently.

### *Literature / Study Material*

Material associated with research and the students' own topic. The choice of material must be discussed with the supervisor.

### *Assessment*

According to the criteria set for the assessment of theses at the Seinäjoki University of Applied Sciences

### *Languages of Instruction*

English

### *Further Information*

Research work and thesis process, instructions.

## **Maturity test KD19FYOT100 (study unit)**

### *Lecturers*

Thesis supervisor



*Objectives*

Students are required to sit a Maturity Test to receive their university of applied sciences degree. Students will write about a topic related to the thesis, which indicates their knowledge of the topic and language skills. If a student has received his/her previous education in a language other than Finnish or Swedish, the student takes the Maturity Test in English.

*Content*

Students must demonstrate that they master the content of their thesis and produce a clear and consistent written presentation.

*Assessment*

The content and use of language in the Maturity Test is evaluated on a pass/fail basis. The thesis supervisor evaluates the Maturity Test.

*Prerequisites*

Students may register for the Maturity Test after they have submitted their thesis for final assessment.

*Further Information*

More information concerning registration for the Maturity Test and writing instructions is available on the Business School's web-site.

# Degree Programme in Library and Information Services (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Business Administration

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The objective of the curriculum is to emphasise teaching methods that actively engage students in the learning process; learning involves the acquisition and analysis of information and the production of new information. Pedagogy can be described as constructivism that complements expertise. However, teaching in individual courses may be marked by typical constructivist methods, such as problem-based learning, project learning together with representatives of the working world, co-operative learning and online study. Teaching also involves lectures, group work and examinations based on set literature.

Students are encouraged to take part in practical training abroad and to acquire other forms of educational experience during their studies. There is a study module available in English (25 cr) for our international partners. Students taking part in the programme have the opportunity to study in English together with foreign exchange students.

Research and development is integrated into the curriculum on two levels: (1) individual courses are carried out through student projects based on phenomena in the working world and issues concerning patrons, and (2) thesis work is combined with development work during students' practical training period, for example. Furthermore, the degree programme engages in regional and national projects, which are integrated into teaching, thesis work, and the research and development carried out by the university staff.

## PROFILE OF THE PROGRAMME

The purpose of the degree programme is to provide students with the readiness they need to work in customer-service and development and in specialist positions in libraries and information service centres. Students graduating from the programme will possess knowledge and skills in running, developing and supervising staff in a library and information service centre. Specialised skills, such as storing data and acquiring information, knowledge of literature, social skills and computer skills, are emphasised in the programme.

## KEY LEARNING OUTCOMES

### *Competence in organising information*

A Bachelor of Business Administration

- \* understands the processes involved in the creation of information and publications.
- \* is able to describe and store various types of documents for those who need them.

### *Competence in acquiring information*

A Bachelor of Business Administration

- \* understands the principles of the information acquisition process.
- \* is able to find information utilising various database systems and sources to meet the needs of patrons.

### *Computer competence*

A Bachelor of Business Administration

- \* understands the library network.
- \* has knowledge of and is able to use computer equipment and data-processing systems for planned library and information services.

### *Competence in customer service*

A Bachelor of Business Administration

- \* commands the social skills needed to serve library patrons and carry out activities in the work community.
- \* commands the skills needed to guide and instruct patrons.

### *Competence in handling collections of materials*

A Bachelor of Business Administration

- \* understands various contents of information and ability to choose relevant sources of information to meet the needs of the patron.
- \* commands the principles and methods for forming and developing collections or various types of patron groups.

## OCCUPATIONAL PROFILES

The programme provides students with the qualifications for working in public libraries as stated in the Library Act. Students can specialise in various areas within the field through the courses they choose.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in library and information services. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at KIKO 2009 (1.9.2009), 210 cr.

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of degree programme: Ms Pirkko Vuorela, tel. +358 40 830 4291, e-mail: [pirkko.vuorela@seamk.fi](mailto:pirkko.vuorela@seamk.fi)

Student counsellor: Ms Tuija Huusko, tel. +358 40 830 4227, e-mail: [tuija.huusko@seamk.fi](mailto:tuija.huusko@seamk.fi)

ECTS departmental coordinator / International coordinator: Ms Eija Pennanen, tel. +358 40 830 4272, e-mail: [eija.pennanen@seamk.fi](mailto:eija.pennanen@seamk.fi)

## Degree Programme in Library and Information Services (In Finnish) (1.9.2009) KIKO 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
PERUS18	<b>BASIC STUDIES</b>					<b>40</b>
KD18AITP003	Study skills and professional growth	x				3
KH13APE1410	Native language and communication	x				5
KH18AITP004	Computer as a tool	x				5
KH18AITP005	Entrepreneurship			x		3
KH13PHT0300	Cultural policy			x		3
KH18BITP005	Web production	x				5
KH18APE1411	Introduction to marketing	x				2
KH18KIELET	<b>Language and communication studies</b>					<b>14</b>
KH18AYRU001	Swedish for working life	x				4
KH18AYEN001	Working life communications skills	x				4
KD18CYEN001	KD18CYEN001		x			
KH18CYEN001	English for librarians		x			3
KD07CYRU120	Library Swedish		x			3
AMMATTI18	<b>PROFESSIONAL STUDIES</b>					<b>115</b>
KH18KIYH	<b>Libraries in the society</b>					<b>27</b>
KH18KIYH01	Developing libraries	x				13
KH18KIYH02	Leadership in libraries	x				14
KH18FAFI	<b>Fiction and non-fiction as material</b>					<b>17</b>

KH18FAFI01	Non-fiction	x				8
KH18FAFI02	Fiction	x				9
KH18ASTP	<b>Information service</b>					<b>30</b>
KH18ASTP01	Customers, media and libraries	x				9
KH18ASTP02	Information storage and retrieval	x				21
KH18TIJÄ	<b>Information systems</b>					<b>9</b>
KH18TIJÄ01	Information networks and library systems		x			5
KH18TIJÄ02	Databases			x		4
KH18OTPRO	<b>Final thesis process</b>					<b>7</b>
KH18OTPRO01	Research methods		x			5
KH18CPTU020	Thesis seminar		x			2
SUUNTA18	<b>ADVANCED STUDIES</b>					<b>25</b>
KH18KIPE	<b>Library pedagogics</b>					<b>25</b>
KH18KIKU	<b>Literature and culture</b>					<b>25</b>
KH18TJPA	<b>Information systems</b>					<b>25</b>
KH18MULI	<b>Multicultural Libraries (In English)</b>					<b>25</b>
VAPVAL18	<b>FREE-CHOICE STUDIES</b>					<b>10</b>
TYOHARJ18	<b>PRACTICAL TRAINING</b>					<b>30</b>
KH18HYTH120	Practical training			x		30
OPINKYPS18	<b>THESIS AND MATURITY EXAMINATION</b>					<b>15</b>
KH18FYOT200	Thesis				x	15
KH18FYOT100	Maturity examination				x	

## Study Descriptions

### BASIC STUDIES, 40 op PERUS18 (study entity)

Upon completion of the Basic Studies, students will have a general understanding of the significance of different libraries in society as part of cultural policy. Students will possess the basic knowledge and skills needed in communication, information processing and they are competent in Swedish and another foreign language as required in the working world.

### Study skills and professional growth, 3 op KD18AITP003 (study unit)

#### Lecturers

Head of degree programme and guidance counselor

#### Objectives

Students will become familiar with the activities within the university of applied sciences, the learning environment and community, as well as with the degree programmes and learning methods. They will analyse their own learning skills and know how to develop them. They will be aware of their responsibility as a learner and later as a colleague. Students will be competent in presenting their knowledge and skills when applying for a job. They will develop a strong professional profile and possess the ability to seek various positions in the working world.

#### Content

- University of applied sciences as a study environment
- Support services: health care, financial aid, library services, etc.
- Various learning methods and the development of one's learning skills
- Compilation of a personal study plan and assessment each year of how well the objectives in it have been achieved
- Preparation for practical training

- Familiarisation with the duties in one's professional field, job descriptions, and qualification requirements
- Preparation for job hunting

#### *Literature / Study Material*

Study Guides and other material distributed by the teachers

#### *Learning Methods*

- Active participation
- Completion of assignments pertaining to study plans, practical training and job hunting
- Field trips

#### *Assessment*

The course is graded on a pass/fail basis.

#### *Further Information*

The course continues in parts into the third year.

### **Native language and communication, 5 op KH13APE1410 (study unit)**

#### *Lecturers*

Riikka Järvelä, MA

#### *Objectives*

Students will be competent in writing various types of texts and understand in which context they can be used (written communication). They will also renew their view of themselves as communicators via constructive feedback and self-evaluation. Students will also acquire competence in interacting and analysing various contexts of communication, and understand central theories (oral communication). They will be able to identify the means of communication and their own role within a group. Students will take part in small-group communication, develop the ability to give feedback, become familiar with small-group communication theories, and possess the ability to use these in their studies and future careers (small-group communication).

#### *Content*

- Written communication: Command of linguistic norms and the correct usage of the Finnish language, familiarisation with scientific and professional language and texts, process writing and the standards of scientific communication language
- Oral communication: Practical course concentrating on individual ways of communicating while renewing and analysing their view of themselves as communicators in public speaking situations. Central communication theories and models will be introduced during lectures.
- Small-group communication: Considers the behaviour of groups and one's own behaviour from a communicative perspective. Central theories will be discussed, as well as the practice and analysis of various group communication situations.

#### *Literature / Study Material*

- Handouts to be distributed during the course
- Field-specific articles

#### *Learning Methods*

- Lectures
- Discussion
- Assignments to be completed in class and at home
- Group work

#### *Assessment*

Scale 1–5: 80 % attendance required. Assessment discussed during the first lesson. Sixty per cent of the grade is based on participation and assignments and 40 % is based on the exam.

### **Computer as a tool, 5 op KH18AITP004 (study unit)**

#### *Lecturers*

Jari Katajisto

### *Objectives*

The main aim of the course is to teach students to understand the significance of information processing in education and in the working world. During the course, students will become familiar with the institution's IT equipment and acquire basic skills in word processing, using spreadsheets and graphics. Upon completion of the course, students will be able to illustrate what they know using information technology.

### *Content*

- Basics in information processing: presenting information and equipment
- Basics in the operating system and utility programmes: Windows XP/Vista, Excel, Word, PowerPoint, and Outlook MS Office programmes

### *Learning Methods*

Lectures, guided exercises, exercises completed independently, and an independent assignment

### *Assessment*

Completed exercises, exam, assignment. Grading is based on a scale of 1 to 5 or on a pass/fail basis.

## **Entrepreneurship, 3 op KH18AITP005 (study unit)**

### *Objectives*

Students will become familiar with the concepts associated with entrepreneurship and their significance in the operation of an organisation. Such concepts include entrepreneurship, internal entrepreneurship, values, vision, mission, business or service ideas, etc. Students will also be familiar with the processes involved in establishing their own business.

### *Content*

- Entrepreneurship and internal entrepreneurship
- Business ideas, service ideas, values, vision, mission
- Business environment and analysis of one's own business
- From strategic planning to implementation
- Business monitoring systems

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Written exam and assignments

## **Cultural policy, 3 op KH13PHT0300 (study unit)**

### *Lecturers*

Arto Juurakko, MA

### *Objectives*

Students will gain an overview of the structure and mechanisms of cultural policy.

### *Content*

- Cultural policy and the structure of cultural administration in Finland
- Forms of governmental support
- Role of arts councils
- Significance of civil organisations, foundations and funds
- Nordic cultural policy and decision-making
- Nordic cultural organisations and institutions
- Role of the Nordic Council for Ministers in the cultural field
- Cultural policy in the EU
- Structure of the EU and decision-making in the field of media
- Organs and funds in the fields of culture and media

### *Literature / Study Material*

To be announced during the first lesson.

*Learning Methods*  
Lectures, assignments

*Assessment*  
1–5

## **Web production, 5 op KH18BITP005 (study unit)**

*Lecturers*  
Osmo Mäkinen, MA

*Objectives*  
Students will understand the significance of functional network communication to libraries and other information services organisations. They will be competent in designing and implementing a functional, standardized network service (network website). They will know how to publish a network service on the Internet.

*Content*

- Significance of network communication to libraries and other information services organisations
- Techniques for creating network services: XHTML language, CSS language
- Web publishing programme
- Publishing a network service on the www server
- Basics of XML language

*Literature / Study Material*  
Material provided by the lecturer.

*Learning Methods*  
Lectures, supervised exercises, and assignment

*Assessment*  
Assignment and other forms of assessment Grading is based on a scale of 1 to 5.

*Prerequisites*  
Computers as Tools

## **Introduction to marketing, 2 op KH18APE1411 (study unit)**

*Objectives*  
Students will understand the significance of marketing to an organisation. They will be competent in identifying and utilising competitive marketing tools and adopt a marketing-minded way of working.

*Content*

- Basics in marketing
- Advertising
- Productisation and adapting a product to various medias
- Image marketing
- Brand
- Marketing a creative product
- Sponsoring

*Literature / Study Material*  
Anttila M. & Iltanen K. 2001. Markkinointi. 5th edition. WSOY.

*Learning Methods*

- Lectures
- Assignments
- Exam

*Assessment*

- Exam
- Assignments
- Active participation

Grading is based on a scale of 1 to 5.

## **Language and communication studies, 14 op KH18KIELET (study entity)**

The aim of the language and communication studies is to provide students with the required language skills in Swedish and at least another foreign language needed in the working world. Students will be able to acquire information in the target language and express their message in the proper way. They will be aware of how cultural differences may affect communication, and they will know how to relate to people from different cultural backgrounds. Students will also know how to use learning strategies suitable to their way of learning and, through self-evaluation, they will be able to form a realistic picture of their language skills.

## **Swedish for working life, 4 op KH18AYRU001 (study unit)**

### *Lecturers*

Päivi Seppälä, MA (Education)

### *Objectives*

Students will be competent in communicating both in writing and orally in Swedish in everyday situations and on the job. They will know how to acquire and utilise information associated with their field and know how to use the basic field-related. They will have a positive attitude toward developing their language skills. Upon completion of the course, students will:

- be able to tell about themselves, their education and job experience,
- be able to tell about the jobs in their field,
- be familiar with the basic terminology used in the library field,
- know how to act and give advice and instructions in job-related situations, and
- be competent in writing and speaking.

### *Content*

- Telling about oneself and one's education, as well as CVs
- Work environments, duties, activities associated with the job
- Small talk
- Telephone and electronic communication
- Giving advice and instructions in job-related situations
- Texts associated with the library field

### *Literature / Study Material*

To be announced at a later date.

### *Learning Methods*

- Oral exercises such as discussions in pairs and in groups
- Presentations
- Written assignments
- Computer assisted exercises

### *Assessment*

- Active participation in the lessons as well as in the oral and written exercises
- Written and oral exam

All parts must be approved to receive a grade for the course.

## **Working life communications skills, 4 op KH18AYEN001 (study unit)**

### *Lecturers*

Päivi Alaniska

### *Objectives*

Students will understand the basic concepts and vocabulary of business language. They will be competent in talking about their education, job, and businesses. They will also be competent in managing everyday language situations using appropriate language skills. Students will have command of telephone communication and writing business letters, and they will be familiar with the differences in various texts used in the working world. In addition, students will know how to talk about their education and apply for jobs in English, and tell others about Finland. They will be competent in



various social situations.

### *Content*

- Education
- Working world
- Job hunting
- Written and oral business communication
- Basic vocabulary for business

### *Literature / Study Material*

Niskanen, Vetter, & Urbom. 2008. Business Express. WSOY.

### *Learning Methods*

Oral and written exercises, lectures, and group work

### *Assessment*

Continuous indication of competency, written assignments and written final exam

## **Library Swedish, 3 op KD07CYRU120 (study unit)**

### *Lecturers*

Päivi Seppälä, MA (Edu.)

### *Objectives*

Students will master the basic concepts associated with library and information services. They will understand the spoken and written language within their field and be able to cope both orally and in writing in customer–service situations and other situations in their field.

### *Content*

The course comprises the following topics:

- Library websites
- Vocabulary and texts on the library field
- Library networks
- Library materials, facilities and functions, personnel and duties
- Customer service and other such situations

### *Literature / Study Material*

Library websites and material announced by the lecturer

### *Learning Methods*

Lectures, oral and written exercises, independent information retrieval, working in pairs and groups. Most of the written assignments are done online.

### *Assessment*

Active participation in lectures and exercises, oral and written assignments, presentation, and written examination

### *Prerequisites*

Svenska för arbetslivet

### *Languages of Instruction*

Finnish and Swedish

## **PROFESSIONAL STUDIES, 115 op AMMATTI18 (study entity)**

The aim of the Professional Studies is to familiarise students with the central activities in the library and information services fields such that students are able to independently work in customer service and development and consultation duties. The primary issues involved in library and information service work are central parts of the Professional Studies. These include:

- Working with collections
- Making information and publications available to patrons
- Information retrieval
- Information processing skills
- Familiarisation with various activities in the library field

During the practical training, students are familiarised with the practical aspects of library work. Studies that prepare students for writing their thesis are common to all students. Students may reinforce their professional direction with alternative studies.

## **Libraries in the society, 27 op KH18KIYH (study entity)**

The aim of the Libraries in Society Module is to provide students with an overall understanding of the library network in Finland as part of the society's information management, the development of the library network, its current status and visions for the future. Students will be familiar with the designing and marketing of library services as well as with the evaluation of the various sub-areas of library activities. Students will be competent in working on a team and in interacting with others. They will be aware of what human resources management is, and they will be prepared to work in management positions.

## **Developing libraries, 13 op KH18KIYH01 (study unit)**

### *Lecturers*

- Pirkko Vuorela, MSSc
- Guest lecturers

### *Objectives*

Students will acquire a general understanding of the library network in Finland as part of the society's information management, the development of society, current status of the library in society and visions for the future. Upon completion of the course, students will be familiar with the various forms and services of libraries and will know how to develop services, form services into products, market services and evaluate the suitability of a service(s). product. Students will acquire the readiness needed to work in a multicultural environment and to participate in the development of library services for people with an immigrant background.

### *Content*

- General history of libraries in the Western World, briefly
- Stages of development for libraries in Finland within the framework of society
- Various types of libraries and information service organisations, the services they offer and methods for designing, developing and evaluating services
- Future prospects for the library: current development projects and strategies
- Working in a multicultural library
- Marketing and advertising services
- Making services into products

### *Literature / Study Material*

- Anttila M. & Iltanen, K. 2001. Markkinointi. 5th edition. WSOY.
- Korpisaari J. & Saarti J. (eds.). 2007. Kirjastonhoitaja tulevaisuudessa, millaista osaamista kirjastot tarvitsevat. Kirjastonhoitajien säätiö.
- Heinisuo R. & Koskela S. & Saine R. 2004. Kirjastopalvelut kaikilla mausteilla. Ministry of Education. Also available online at: [http://www.minedu.fi/OPM/Julkaisut/2004/kirjastopalvelut\\_kaikilla\\_mausteilla\\_palvelutuotannon\\_tila\\_tar](http://www.minedu.fi/OPM/Julkaisut/2004/kirjastopalvelut_kaikilla_mausteilla_palvelutuotannon_tila_tar)
- Alameri–Sajama R.(ed.) 2007. Nuortenkirjastotyön käsikirja. BTJ.

### *Learning Methods*

- Lectures
- Small group work
- Independent information acquisition assignments
- Individual and group exams
- Journals

### *Assessment*

- Written exams
- Assignments
- Journals

### *Further Information*

The course includes the following parts:

- Introduction to the Library and Information Services Field, 4 cr
- Multicultural Library Environments, 3 cr
- Developing and Evaluating Library Services, 3 cr
- Marketing and Productisation of Library Services, 3 cr

## **Leadership in libraries, 14 op KH18KIYH02 (study unit)**

### *Lecturers*

- Pirkki Vuorela, MSSc
- Marja Salonen
- Guest lecturers

### *Objectives*

Students will be familiar with the concepts of teamwork and interaction and understand what human resources management is. They will acquire the readiness needed to function in management positions and various projects that develop library activities. They will also understand the principles of public economics. Students will be familiar with the structure of the library budget and how to compile a budget as part of public economics. They will also be familiar with the legislation pertaining to copyrights and processing and mediating information.

### *Content*

- Distinctive features of public economics
- Planning and monitoring finances and interpreting financial statements
- Library budgets and how to compile them
- Accounting and monitoring accounting
- Teamwork skills: working on a team, team roles, working as team leader, developing the activities of a team
- Human resources management: concept of human resources management, working as a supervisor, legal status of employees, labour and civil servant rights
- Project management
- Copyright Act
- IT contracts
- Legislation pertaining to information security

### *Literature / Study Material*

- Viitala R. 2009. Henkilöstöjohtaminen, strateginen kilpailutekijä. Edita.
- Silfverberg P. 2007. Ideasta projektiksi. Projektisuunnittelun käsikirja. Edita.
- Poroila H. 2006. Tekijänoikeus ja kirjastot tietoverkkojen maailmassa. BTJ Kirjastopalvelu.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Assessment is based on the lectures, assignments, and written exams.

### *Further Information*

The course comprises the following parts:

- Financial Management, 3 cr
- Human Resources Management, 4 cr
- Project Management in the Library Field, 3 cr
- Information Technology and Copyrights, 4 cr

## **Fiction and non-fiction as material, 17 op KH18FAFI (study entity)**

The purpose of the Facts and Fiction as Material Module is to familiarise students with publishing and distribution. Students will also learn about the various stages involved in work with library collections, especially methods of evaluation and how to apply those methods.

## **Non-fiction, 8 op KH18FAFI01 (study unit)**

### *Lecturers*

Sari Mäkinen-Laitila, MA

*Objectives*

Students will become familiar with the publication and distribution of various non-fiction works contained in library collections. Upon completion of the course, students will be familiar with the various stages involved in work with library collections, from researching the information needs of communities to the methods for evaluating collections. They will be competent in applying their knowledge in practice.

*Content*

- Publication and distribution networks for various non-fiction materials: books, magazines, journals, CDs and DVDs, electronic publications
- Stages in work with collections, especially the means and tools for evaluating collections
- Bibliometrics briefly
- Organising material for patrons to use

*Literature / Study Material*

- Wilen R. & Kortelainen T. 2007. Kirjastokokoelmien kehittämisen ja arvioinnin perusteet. Yliopistopaino.
- Other material to be announced at the beginning of the course

*Learning Methods*

Lectures and assignments

*Assessment*

Written exams and assignments

*Further Information*

The course comprises the following parts:

- Publishing, 4 cr
- Working with Collections, 4 cr

## **Fiction, 9 op**

### **KH18FAFI02 (study unit)**

*Lecturers*

- Mari Heinonen, MA
- Sari Mäkinen-Laitila, MA

*Objectives*

Upon completion of the course, students will be familiar with the genres and periods of world literature and Finnish literature. They will also be familiar with the more significant representatives of literature and their works. They will be competent in keywording fiction and using keywords to find literature for patrons.

*Content*

- Genres and periods of literature
- Significant representatives of world literature based on language
- History of Finnish literature
- Fictional literature from the viewpoint of the patron: keywording and shelf codes

*Literature / Study Material*

Hypen K. (ed.) 2006. Fiktiota: levottomat genret ja kirjaston arki. BTJ Kirjastopalvelu.

*Learning Methods*

- Lectures
- Assignments
- Independent information acquisition and presenting results to all
- Discussions during lessons

*Assessment*

- Written exams
- Assignments during lessons
- Essays

*Further Information*

The course comprises the following parts:

- Finnish Literature, 5 cr
- World Literature, 4 cr (in English)

## **Information service, 30 op KH18ASTP (study entity)**

The aim of the Customer-oriented Information Services Module is to prepare students to work in a customer-oriented manner in job positions involving information services. They will be competent in designing, initiating and evaluating situations where consultation and teaching is needed. They will be familiar with the concepts associated with media education and be prepared to work as a media educator for children and youth.

## **Customers, media and libraries, 9 op KH18ASTP01 (study unit)**

*Objectives*

Students will possess the skills needed to act in customer-service situation communicatively and with regard for the patron's needs. They will be competent in designing and initiating opportunities for individual patrons and groups of patrons to receive consultation or teaching in searching for and obtaining information. Students will understand the meaning of media education from the point of view of the library, and they will be prepared to work as media educators for children and youth.

*Content*

- Distinctive features of public services
- Developing the quality of service
- Service situations and leading them
- Personal demeanour in customer-service situations
- The media as part of the lives of children and youth
- Methods of media education in the library
- Designing, initiating and evaluating opportunities for patrons to receive guidance and teaching
- Information literacy

*Literature / Study Material*

- Sormunen E. & Poikela E. 2008. Informaatio, informaatiolukutaito ja oppiminen. Tampere University Press.
- Kupias P. 2001. Oppia opetusmenetelmistä. Editra.
- Pesonen H-L. & Toskala A. 2002. Asiakaspalvelu vuorovaikutuksena. PS-kustannus.

*Learning Methods*

- Lectures
- Exercises
- Group work
- Independent written assignments

*Assessment*

Assessment is based on various assignments given to the students and possibly on written exams.

*Further Information*

The course comprises the following parts:

- Customer Service, 3 cr
- Library Pedagogics and Media Education, 6 cr

## **Information storage and retrieval, 21 op KH18ASTP02 (study unit)**

*Lecturers*

- Ari Haasio, MSc and MA
- Pirkko Vuorela, MSc

*Objectives*

Students will be competent in acquiring a diverse range of information from various sources suitable for each individual situation and to critically evaluate the information. Students will know how to use different sources of information in a

varied manner and be familiar with the stages of the information acquisition process. They will understand the essential, theoretical issues in searching for and acquiring information and be able to apply them to practical information acquisition situations. They will know how to store information to be used in various mechanisms for finding information, and they will have command of the essential principles of cataloguing and classification. Finally, students will be familiar with the methods, tools and future opportunities for storing publication information.

### *Content*

- Theoretical basis for information acquisition
- Searching for information online and in databases
- Types of printed and electronic sources
- Methods for storing information and how to use them
- Designing information searches that serves patrons' needs, communicating with patrons and interviewing patrons about what they need
- Essential professional and non-professional organisation of information acquisition
- Basics of the philosophy of information
- Structures and types of databases

### *Literature / Study Material*

- Alaterä A. & Halttunen K. 2002. Tiedonhaun perusteet, osa lukutaitoa. BTJ Kirjastopalvelu.
- Haasio A. 2008. Kaikki irti Internetistä. BTJ Kirjastopalvelu.
- Haasio A. 2005 Internetin tietokannat. BTJ Kirjastopalvelu.
- Haasio A. 2009. Tiedonlähteet. BTJ Kirjastopalvelu. (publ. 10/2009)
- Haasio A. & Savolainen R. 2004. Tiedonhankintatutkimuksen perusteet. BTJ Kirjastopalvelu.
- Suomalaiset luettelointisäännöt, Monografioiden kuvailu. 2006. University of Helsinki Library. BTJ Kirjastopalvelu. Also available online at:  
[http://www.kansalliskirjasto.fi/kirjastoala/luettelointisaannot/Files/liitetiedosto2/monografioiden\\_kuvailu.pdf](http://www.kansalliskirjasto.fi/kirjastoala/luettelointisaannot/Files/liitetiedosto2/monografioiden_kuvailu.pdf)
- WebPLC, Finnish Public Libraries Classification System: <http://ykl.kirjastot.fi/>
- Universal Decimal Classification (UDC). 1983. [publ.] Tietopalveluseura.
- Saarti J. & Suominen V. & Tuomi P. 2009: Tiedonjärjestämisen perusteet, bibliografinen valvonta, johdatus luetteloinnin ja sisällönkuvailun menetelmiin. BTJ Kirjastopalvelu.

### *Learning Methods*

- Lectures
- Work in small groups
- Independent assignments
- Journals
- Online learning
- Exams

### *Assessment*

- Written exams
- assignments
- Journals
- Online learning

### *Further Information*

The course comprises the following parts:

- Basics in Information Acquisition, 4 cr
- Methods for Storing Information, 6 cr
- Sources of Information, 5 cr
- Searching for and Acquiring Information, 6 cr

## **Information systems, 9 op KH18TIJÄ (study entity)**

The aim of the Information Systems Module is to familiarise students with the structure and standards of information networks, as well as with how they work, from the point of view of library and information services. Students will understand how library systems work and know the central features, such as the standards pertaining to information systems and services, of the library systems used in Finland. Students will also be knowledgeable of the designing process and functions of document databases.

## Information networks and library systems, 5 op KH18TIJÄ01 (study unit)

### Objectives

Students will be familiar with the structure, functions and standards of information networks from the point of view of library and information services. They will be competent in using local network and Internet applications. Students will be knowledgeable of how library systems work and the features, such as the standards required by libraries' information systems and services, of the library systems used in Finland. Students will also be familiar with the areas of information security. They will be competent in identifying risks to information security and in finding solutions to information security problems. Finally, students will be familiar with the stages involved in the process of acquiring information systems, and they will know how to work as a member of acquisition and development projects.

### Content

- Basics in data communications
- Data communications networks (data networks, telecommunications networks, wireless data transfer), local networks
- Data network services (Internet)
- Libraries and data communications, information systems in libraries
- Library systems used in Finland
- Overview of standards pertaining to information technology
- Development and acquisition process of library information systems
- Concepts pertaining to and areas of information security
- Information security for companies and public service providers, information security solutions for organisations

### Literature / Study Material

- Saarti J. (ed.). 2002. Kirjastojärjestelmän hankkijan opas. BTJ Kirjastopalvelu.
- Paananen J. 2005. Tietotekniikan peruskirja 2005. Docendo. pp. 172–293.

### Learning Methods

- Lectures
- Supervised assignments
- Group work
- Independent study

### Assessment

- Independent assignments and exam
- Other assignments
- Scale: 1–5

### Prerequisites

Computers as Tools (Basic Studies)

## Databases, 4 op KH18TIJÄ02 (study unit)

### Objectives

Students will be familiar with the basic principles of information management. They will be competent in designing and initiating a document database with an existing database programme.

### Content

- Central concepts pertaining to information management
- Designing and modelling a database
- Features and functions of database programmes
- Creating a database with an existing database programme
- Managing databases
- Introducing a database into the online environment

### Literature / Study Material

To be announced during the lectures.

### Learning Methods

- Lectures
- Supervised assignments
- Assignment

#### *Assessment*

- Assignments
- Other work
- Scale 1–5

#### *Prerequisites*

Computers as Tools (Basic Studies)

### **Final thesis process, 7 op KH18OTPRO (study entity)**

Students will be familiar with the principles and process of research work and be competent in writing a thesis that supports their professional development. They will also be familiar with various research methods and know how to apply them to their thesis work.

### **Research methods, 5 op KH18OTPRO01 (study unit)**

#### *Objectives*

Students will understand the principles of research work and the research process, and they will be competent in reporting the results of a study or development project. Students will also be familiar with the principles of the more central research methods and know how to utilise them in their thesis work.

#### *Content*

- Introduction to research and development work: research topic, research process
- Academic writing: requirements of an academic text, style, language, use of sources, citation techniques, outward appearance of a thesis
- Research methods and applying them to thesis topics

#### *Literature / Study Material*

- Holopainen M & Pulkkinen P.2008. Tilastolliset menetelmät. 5th edition. WSOY. (applicable parts)
- Tuomi J. & Sarajärvi A. 2002 (or later edition). Laadullinen tutkimus ja sisällönanalyysi. Tammi. 20. (applicable parts)

#### *Learning Methods*

Lectures and assignments

#### *Assessment*

Lectures and assignments

### **Thesis seminar, 2 op KH18CPTU020 (study unit)**

#### *Lecturers*

Ari Haasio, MSc, MA

#### *Objectives*

The purpose of the thesis seminar is to provide support for students during their thesis process. Students will learn to present their thesis topic, plan, and completed thesis. They will also be competent in evaluating the thesis process of other students.

#### *Content*

Seminar work:

- Determining the thesis topic
- Making a plan and presenting it
- Presenting the completed work
- Peer evaluation

#### *Literature / Study Material*

Material distributed by the teacher.



*Learning Methods*

Group work

*Assessment*

Pass/fail

**ADVANCED STUDIES, 25 op**  
**SUUNTA18 (study entity)**

During their Specialisation Studies, students reinforce their professional expertise. Each Specialisation Module is worth 25 credits. Students are required to complete 15 credits worth of courses in their chosen line of specialisation. Students may then choose 10 credits worth of courses in another line(s) of specialisation of their choice. The 15 credits (3 x 5 cr) in the Specialisation Modules are marked in each individual study module.

**Library pedagogics, 25 op**  
**KH18KIPE (study entity)**

The purpose of the Library Pedagogics Module is to deepen the knowledge students learned in the Patronship, Media and the Library course. Students will be prepared to function as experts, instructors for teaching patrons to search for and acquire information, and as media educators. The module comprises the following courses:

- Information Literacy (compulsory for students who chose the module), 5 cr
- Instructor Skills (compulsory for students who chose the module), 5 cr
- Instructor Project (compulsory for students who chose the module), 5 cr
- Children and youth as Users of Media, 5 cr
- Media Education for Special Groups, 5 cr

**Literature and culture, 25 op**  
**KH18KIKU (study entity)**

Students deepen their knowledge of the cultural contents of the collections in public libraries. They will become especially familiar with how to work with children and youth patrons. The module comprises the following courses:

- Literary Genres (compulsory for students who chose this module), 5 cr
- Music and Film in the Library (compulsory for students who chose this module), 5 cr
- Creating Events (compulsory for students who chose this module), 5 cr
- Literature for Children and Youth, 5 cr
- Children as Patrons, 5 cr

**Information systems, 25 op**  
**KH18TJPA (study entity)**

Students will become familiar with the structures and organisation of information networks as well as the organisation and designing of contents for online services. Students will also be introduced to the electronic archiving of documents and information. The module comprises the following courses:

- Information Architecture (compulsory for students who chose this module), 5 cr
- Information Network Project (compulsory for students who chose this module), 10 cr
- Electronic Material and Virtual Libraries, 5 cr
- Online Transactions and Electronic Archives, 5 cr

**Multicultural Libraries, 25 cr**  
**KH18MULI (study entity)**

The aim of the Multicultural Libraries Module is to help students understand different cultures and the impact people with an immigrant background have on library work. Understanding the meaning of cultural diversity in library work and the ability to develop public libraries to answer to this challenge is important in librarian work. This module, which consists five different courses, will answer these questions. Courses:

- Libraries and Multicultural Services, 5 cr
- Immigrants as Patrons, 5 cr
- Cultural Diversity in Society, 5 cr
- Children and Youth as Patrons in a Multicultural Library, 5 cr
- Project, 5 cr

## **FREE-CHOICE STUDIES, 10 op**

### **VAPVAL18 (study entity)**

Students may choose elective courses from the selection offered at the Seinäjoki University of Applied Sciences. Elective courses may also comprise optional courses for Professional Studies either in their own degree programme or in some other degree programme. Courses completed in other institutions of higher education, which are related to students' professional direction, may also be considered elective courses. The head of degree programme must approve the module of elective courses.

## **Practical training, 30 op**

### **KH18HYTH120 (study unit)**

#### *Lecturers*

Head of Degree Programme

#### *Objectives*

The aim of practical training is to guide the development of students' professional expertise and their skills to apply what they have learned in practice. Practical training will also prepare students to not only work independently, but to also actively work as a member of a work community. Students will have the opportunity to get ideas and inspiration for their own profession and a topic for their final thesis.

#### *Content*

- Job orientation
- After orientation, students take part in various duties as opportunities arise
- Compilation of an initial report before the practical training begins, an interim report half way through the training and a final report at the end
- Seminar presentation of the experiences encountered during practical training

#### *Assessment*

Students receive a grade of 'pass' for completing the practical training.

## **Thesis, 15 op**

### **KH18FYOT200 (study unit)**

#### *Objectives*

Students may do their thesis independently or take part in a more extensive research and development project. Students will illustrate their competence in applying the theoretical knowledge they have acquired in their studies to their thesis. During the thesis writing process, students will learn to solve problems and work in projects. They will also develop their skills in thinking scientifically and progressively and be adept in acquiring information independently. They will also be competent in presenting results or writing reports for development projects. Students will write their reports in a logical manner using correct forms of language and professional, academic terminology. The thesis process will also provide students with an opportunity to use their creativity, to experiment and to apply unique applications.

#### *Content*

The students themselves are responsible for choosing a thesis topic. Oftentimes, the organisation where they are doing their practical training commission them to carry out a study. Students discuss their chosen topic and what specifically about the topic they will be examining, as well as their thesis plan, with their thesis supervisor. Once the work is finished, they will present it in a thesis seminar. Students will actively keep in touch with their supervisor throughout the thesis process. Students must also sit a Maturity Test in which they indicate how well they have mastered the contents of their thesis and produce a clear and consistent text.

#### *Literature / Study Material*

Students use material that pertains to the topic of their thesis, which is discussed with the thesis supervisor.

#### *Learning Methods*

Independently seeking information, analysis of information and group work

#### *Assessment*

Assessment is based on the evaluation criteria used at the Seinäjoki University of Applied Sciences.

## **Maturity examination**

### **KH18FYOT100 (study unit)**

#### *Lecturers*

Thesis supervisor

### *Objectives*

The Government Decree on Polytechnics (352/2003) states the following about Maturity Tests: "To receive a polytechnic degree, students must sit a Maturity Test pertaining to the topic of their thesis. The Maturity Test provides indication that students are familiar with the topic and that they possess skills in the Finnish or Swedish languages. The polytechnic decides on the Maturity Test in the event a student is not required to abide by the regulation stated in Article 8, Paragraph 1." (unofficial translation)

### *Content*

Students must provide indication that they master the contents of their work, and provide grounds for their knowledge, and that they are capable of producing a clear and consistent text.

### *Assessment*

Maturity Tests are graded on a pass/fail basis. Both the content and linguistic form are evaluated and either the content or the linguistic form can be the basis for receiving a failing grade.

### *Prerequisites*

Students may register for the Maturity Test once they have submitted their entire thesis for final grading.

# Degree Programme in Mechanical and Production Engineering (In Finnish)

## SPECIALISATIONS

- \* Automotive and Work Machine Engineering
- \* Mechanical and Production Engineering

## QUALIFICATION AWARDED

Bachelor of Engineering

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

The working world and expertise demand that employees have advanced skills in information acquisition and processing and problem-solving, the ability to collaborate with others and to always be open to new learning situations, as well as the ability to combine various types of information and various disciplines with practical work. This means that students must understand what they are taught. For this reason, teaching in the engineering programme emphasises the constructivist theory of learning where the students' active role and world of experience form a significant part of the education. It is the teacher's duty to facilitate learning and co-ordinate studies.

A variety of teaching methods are used in the programmes to support students' professional development, readiness for the working world and professional expertise. Students work in small groups, listen to lectures by experts, work in the laboratory, do assignments, work in projects and obtain practical experience in real work environments.

## PROFILE OF THE PROGRAMME

The Degree Programme in Mechanical and Production Engineering is divided into two areas of specialisation: Automotive and Work Machine Engineering and Mechanical and Production Engineering.

### *Specialisation in Automotive and Work Machine Engineering*

The purpose of this line of specialisation is to produce automotive engineers who have basic skills in mechanical engineering and specialised expertise in automotive engineering. Students become familiar with machine design, structural engineering of automobiles, automotive electronics, mechanical engineering and entrepreneurship. Students acquire practical experience, on the level of both the employee and that of the engineer, during their practical training and Project Studies.

The automotive industry is one of the fields of industry that has significantly changed the world. Changes have taken place since the time of Henry Ford and will continue to take place in the future. Even today, the automotive engineers are pioneers in technology and their expertise ensures the further development of technology and the preservation of the profession.

### *Specialisation in Mechanical and Production Engineering*

The purpose of the Mechanical and Production Engineering programme is to produce mechanical engineers who have command of the production processes in the machine and metal industry and production management. Students graduating from this programme will have the readiness they need to work as specialists and supervisors in the machine and metal industry, from designing to production and from sales to marketing.

Emphasis in the programme is placed on production engineering, mechanical engineering and entrepreneurship. Students have the opportunity to acquire advanced skills in technical mechanics, materials design, or automation systems. Students acquire practical experience, on the level of both the employee and that of the engineer, during their practical training and Project Studies.

## KEY LEARNING OUTCOMES

### *Specialisation in Automotive and Work Machine Engineering*

#### *Basic competence in automotive technology*

A Bachelor of Engineering

- \* understands the laws of physics for automotive technology.
- \* knows the common chemicals and materials and how to use them.
- \* knows the methods for production technology.

- \* knows the basic structures, components and systems of automobiles.
- \* understands the dynamic behaviour of automobiles and ability to illustrate and simulate it mathematically.
- \* has knowledge of solid-state technology and the associated components.

#### *Advanced competence in automotive technology*

A Bachelor of Engineering

- \* knows the structures the chassis, frame, tyre, engine, and transmission in automobiles, and understanding of the significance of maintenance.
- \* understands the environmental impact of traffic.
- \* commands the essential electronic and data communications applications in automobiles.
- \* has knowledge of maintenance diagnostics.
- \* has knowledge of sensor technology and is able to reliably measure technical magnitudes.

#### *Competence in legislation*

A Bachelor of Engineering

- \* knows the essential legislation pertaining to the structure of automobiles, traffic and transportation.
- \* knows the rights and responsibilities of the employer and the employee.
- \* has knowledge of occupational safety and environmental protection.
- \* knows the rights and responsibilities of the consumer.

#### *Competence in business economics and customer service*

A Bachelor of Engineering

- \* knows the prerequisites for profitable business operations and understands the business idea behind automobile dealerships and transportation companies.
- \* understands the significance of customer service to the operations in a service-providing company.
- \* is able to communicate and work in international organisations.
- \* knows the principles of management and ability to function as a supervisor.
- \* understands the significance of internal and external logistics to the operations of a company.

## **KEY LEARNING OUTCOMES**

### ***Specialisation in Mechanical and Production Engineering***

#### *Basic competence in mechanical engineering*

A Bachelor of Engineering

- \* is able to utilise mathematics and physics to illustrate phenomena in mechanical engineering and to solve problems.
- \* knows the more common components and mechanical organs used in mechanical engineering, and understanding of how the more common types of machines work.
- \* commands basic mechanical measurements.
- \* has knowledge of energy technology and how to use it.

#### *Competence in design*

A Bachelor of Engineering

- \* knows the principles of technical documentation and is able to utilise 3D modelling.
- \* knows of the more common structural materials and the ways they can be used.
- \* understands the significance of standardisation in the design and manufacturing of products.
- \* is able to consider the entire life cycle of a product when designing it.
- \* understands the significance of teamwork and is able to work as an active member of international designing organisations.

#### *Competence in production engineering*

A Bachelor of Engineering

- \* knows the methods, devices and opportunities available in production engineering.
- \* understands the principles of production systems and automation and the impact of them on the structure of a product.
- \* knows the principles of logistics.

#### *Competence in machine safety*

A Bachelor of Engineering

- \* knows the directives pertaining to mechanical design.
- \* is able to design safe and easy-to-use devices and structures.

#### *Competence in business economics*

A Bachelor of Engineering

- \* knows the prerequisites for profitable business operations.
- \* is able to do simple investment calculations.

## OCCUPATIONAL PROFILES

The automotive engineer's scope of duties is broad and diverse. Their duties typically involve designing, production, management, marketing and sales, or they may be self-employed. Places of employment may include the automotive industry, engineering industry, and the fields of insurance and inspection.

The mechanical engineer's scope of duties is broad and diverse. Their duties typically involve designing, production, management, marketing and sales, or they may be self-employed. The employment prospects for mechanical engineers are good, because they are needed to develop and produce state-of-the-art products for an extensive customer base in the domestic and foreign markets. New engineers have the opportunity to choose an interesting area of work and strengthen the success story created by Finnish engineers.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to the university of applied sciences' master's degree in the area of specialisation. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the programmes are available under the following links:

\* KOTU 2009AUTO (in Finnish)

\* KOTU 2009KOTU (in Finnish)

The programme includes 30 credits of supervised practical training in field-related companies. Students in both areas of specialisation participate in Project Studies, which are carried out together with a company. The studies involve Project Workshops where students engage in project work in small groups and the Projects course where students complete assignments independently (30 cr). Students also select 15 credits of elective courses and do a final thesis (15 cr). The degree programme has strong ties with European universities of applied sciences. This offers students the opportunity to study and do their practical training abroad.

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of degree programme: Mr Jukka Pajula, tel. +358 40 830 2396, e-mail: jukka.pajula@seamk.fi

Student counsellor: Mr Heikki Heiskanen, tel. +358 40 830 4269, e-mail: heikki.heiskanen@seamk.fi

ECTS departmental coordinator / International coordinator: Mr Tapio Pihlajaniemi, tel. +358 40 830 3966, e-mail: tapio.pihlajaniemi@seamk.fi

## Degree Programme in Mechanical and Production Engineering (In Finnish) (1.9.2009)

### KOTU 2009AUTO (Automotive and Work Machine Engineering)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KC23AE10	<b>BASIC STUDIES</b>					<b>55</b>
KC23AK10012	Introduction to technical studies	x				1
KC23AK10013	Research methods			x		2
KC23AEKO	<b>Language studies</b>					<b>18</b>
KC23AK10028	Communication and negotiation skills 1	x				3
KC23AK10029	Communication and negotiation skills 2			x		3
KC04AA10031	Swedish		x			3
KC23AK10041	English 1	x				3
KC04AA10050			x			3

	English 2					
KC04AA10060	English 3			x		3
KC23AEKLT	<b>Natural sciences</b>					<b>34</b>
KC23AK10053	Algebra and trigonometry	x				4
KC23AK10054	Vectors and analytic geometry	x				3
KC23AK10055	Differential and integral calculus	x				3
KC23AK10056	Differential equations and business mathematics		x			3
KC23AK10057	Computer aided mathematics		x			3
KC23AK10058	Mechanics	x				3
KC23AK10059	Thermal and electrical physics	x				3
KC23AK10063	Wave and modern physics		x			3
KC23AK10064	Physics laboratory works		x			3
KC23AK10151	Basics of chemistry	x				3
KC23AK10066	Office applications	x				3
KC23BK20000	<b>BASICS OF PROFESSIONAL STUDIES</b>					<b>38</b>
KC23BK20012	Engineering drawing and CAD	x				6
KC23BK20030	Material technique 1	x				3
KC23BK20032	Manufacturing technology	x				3
KC23BK20051	Statics	x				3
KC23BK20062	Dynamics		x			3
KC23BK20071	Strength of materials 1		x			4
KC23BK20092	Machine elements		x			4
KC23BK20101	Electrical engineering and electronics	x				4
KC23BK20132	Industrial economics	x				3
KC23BK20135	Sustainable development	x				3
KC23BK20137	Basic studies in mechanical introduction	x				2
KC04BA30	<b>PROFESSIONAL STUDIES MODULES</b>					<b>60</b>
KCAA10	<b>Module in automotive engineering</b>					<b>15</b>
KC04BA40101	Vehicle laws		x			2
KC04BA40031	Automotive engineering 1		x			3
KC04BA40021	Automotive engineering 2		x			3
KC04BA40072	Automotive engineering 3			x		4
KC04BA60022	Engine technology		x			3
KCAA50	<b>Automotive Electronics Module</b>					<b>15</b>
KC04BA50071	Automotive electrical and electronic systems		x			3
KC04BA50052	Automotive and work machine electronics 1		x			3
KC04BA50053	Automotive and work machine electronics 2			x		3
KC04BA50072	Automotive laboratories		x			6
KCBA60	<b>Work Machine Engineering Module</b>					<b>15</b>
KC04BA60033	Hydraulics		x			3
KC04BA60032	Mobile work machines			x		3
KC04BA60070	Commercial vehicles				x	4

KC04BA70011	Farming machinery engineering				x	3
KC04BA70050	Work machine engineering laboratories				x	2
KC04CA85	<b>Module in entrepreneurship</b>					<b>15</b>
KC04BA60060	Repair shop economy		x			4
KC04BA84000	Project leadership		x			4
KC04BA85022	Automotive marketing and services			x		3
KC04BA85050	Human resources management				x	4
KC23EK20	<b>PROJECT STUDIES</b>					<b>27</b>
KC23EK20100	Project Work Shop		x			12
KC23EK20101	Project Course				x	15
KC23DK10000	<b>FREE CHOICE STUDIES</b>					<b>15</b>
KC23DK20010	CAD –tool for engineer		x			2
KC23DK20011	CAD –continuation studies			x		3
KC23EK20010	<b>PRACTICAL TRAINING</b>					<b>30</b>
KC23FK30001	<b>FINAL THESIS</b>					<b>15</b>

## Degree Programme in Mechanical and Production Engineering (In Finnish) (1.9.2009)

### KOTU 2009KOTU (Mechanical and Production)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KC23AE10	<b>BASIC STUDIES</b>					<b>55</b>
KC23AK10012	Introduction to technical studies	x				1
KC23AK10013	Research methods			x		2
KC23AEKO	<b>Language studies</b>					<b>18</b>
KC23AK10028	Communication and negotiation skills 1	x				3
KC23AK10029	Communication and negotiation skills 2			x		3
KC23AK10031	Swedish		x			3
KC23AK10041	English 1	x				3
KC23AK10051	English 2		x			3
KC23AK10061	English 3			x		3
KC23AEKLT	<b>Natural sciences</b>					<b>34</b>
KC23AK10053	Algebra and trigonometry	x				4
KC23AK10054	Vectors and analytic geometry	x				3
KC23AK10055	Differential and integral calculus	x				3
KC23AK10056	Differential equations and business mathematics		x			3
KC23AK10057	Computer aided mathematics		x			3
KC23AK10058	Mechanics	x				3
KC23AK10059	Thermal and electrical physics	x				3
KC23AK10063	Wave and modern physics		x			3
KC23AK10064	Physics laboratory works		x			3



KC23AK10151	Basics of chemistry	x				3
KC23AK10066	Office applications	x				3
KC23BK20000	<b>BASICS OF PROFESSIONAL STUDIES</b>					<b>38</b>
KC23BK20012	Engineering drawing and CAD	x				6
KC23BK20030	Material technique 1	x				3
KC23BK20032	Manufacturing technology	x				3
KC23BK20051	Statics	x				3
KC23BK20062	Dynamics		x			3
KC23BK20071	Strength of materials 1		x			4
KC23BK20092	Machine elements		x			4
KC23BK20101	Electrical engineering and electronics	x				4
KC23BK20132	Industrial economics	x				3
KC23BK20135	Sustainable development	x				3
KC23BK20137	Basic studies in mechanical introduction	x				2
KC23BK30	<b>PROFESSIONAL STUDIES MODULES</b>					<b>45</b>
KC23KO50	<b>Production technology module</b>					<b>15</b>
KC23BK30011	NC technology		x			3
KC23BK30021	Production systems		x			3
KC23BK30031	Quality technology			x		3
KC23BK30041	Production management			x		3
KC23BK30051	Production technology laboratory work			x		3
KC23KO60	<b>Mechanical engineering module</b>					<b>15</b>
KC23BK40011	Strength of materials 2		x			3
KC23BK40012	Hydraulics and pneumatics		x			5
KC23BK40013	Welding technology		x			4
KC23BK40051	Product development				x	3
KC23KO80	<b>Entrepreneurship module</b>					<b>15</b>
KC23BK60005	Marketing		x			3
KC23BK60021	Business economics		x			4
KC23BK60050	Project leadership		x			4
KC23BK60062	Human resources management				x	4
KC23CK70000	<b>OPTIONAL PROFESSIONAL STUDIES MODULES</b>					<b>15</b>
KC23KO90	<b>Applied mechanics module</b>					<b>15</b>
KC23CK70011	Matrix algebra			x		3
KC23CK70021	Finite-element method				x	4
KC23CK70031	Mechanical vibrations				x	4
KC23CK70041	Machinery simulation				x	4
KC23KO100	<b>Material engineering module</b>					<b>15</b>
KC23CK50021	Plastics technology			x		3
KC23CK50011	Material technique 2				x	4
KC23CK80031	Material selection				x	4
KC23CK80041	Material engineering laboratory work				x	4
KC23KO10010	<b>Automation systems module</b>					<b>15</b>

KC23CK90011	Control systems			x		4
KC23CK90021	Sensor technology				x	3
KC23CK90031	Robotics				x	4
KC23CK90041	Automation systems design				x	4
KC23EK20	<b>PROJECT STUDIES</b>					<b>27</b>
KC23EK20100	Project Work Shop		x			12
KC23EK20101	Project Course				x	15
KC23DK10000	<b>FREE CHOICE STUDIES</b>					<b>15</b>
KC23DK20010	CAD –tool for engineer		x			2
KC23DK20011	CAD –continuation studies			x		3
KC23EK20010	<b>PRACTICAL TRAINING</b>					<b>30</b>
KC23FK30001	<b>FINAL THESIS</b>					<b>15</b>

## Study Descriptions

### Introduction to technical studies, 1 op KC23AK10012 (study unit)

#### Lecturers

- Jukka Pajula
- Pia–Mari Riihilahti

#### Objectives

Upon completion of the course, students will be familiar with their field and the duties of engineers. They will be capable of planning their studies according to the degree they intend to complete. Students will also be able to use modern information acquisition methods.

#### Content

- Nature of the work and duties of a mechanical engineer
- Degree programme and the structure of the degree
- Compiling a personal study plan
- Familiarisation with the library services and how to use them
- Student financial aid issues
- International activities
- Project workshop
- Theory of learning
- Mind maps
- Preparing for exams
- Planning studies
- Time management

#### Literature / Study Material

- Curriculum 2009–2010
- Material distributed by the teacher

#### Learning Methods

Lectures and assignments

#### Assessment

Active participation in the lectures and assignments

#### Languages of Instruction

Finnish

#### Further Information

- Jukka Pajula

- Pia–Mari Riihilahti

## **Research methods, 2 op KC23AK10013 (study unit)**

### *Objectives*

The course will prepare students for acquiring the type of information they need to do their final thesis. They will be familiar with various research methods and know how to apply them in their thesis work.

### *Content*

- Making use of the Internet
- Databases in libraries and institutions of higher education
- Various scientific research methods and their feasibility in writing a thesis

### *Literature / Study Material*

To be announced.

### *Learning Methods*

Lectures and assignments

### *Assessment*

Assignments and exam

### *Languages of Instruction*

Finnish

## **Communication and negotiation skills 1, 3 op KC23AK10028 (study unit)**

### *Lecturers*

Pia–Mari Riihilahti, FM

### *Objectives*

Upon completion of the course, students will

- be aware of the structures of communicative situations and the factors involved in those structures, and know how to apply their knowledge to the communicative situations encountered in the working world,
- be competent in producing necessary documents for work in proper, clear language,
- be competent in writing standardised texts and be familiar with the different phases involved in business correspondence,
- be aware of how to act when applying for a job and know how to write the necessary documents needed for job applications,
- be aware of the theory of presentation and know how to apply this knowledge to practical situations,
- understand the various communicative situations that may arise in the working world in Finland and abroad, and
- be competent in summarizing research texts properly.

### *Content*

- Structure of communicative situations and its significance in the working world
- Principles of group work
- Everyday communication in the working world, standard
- Business letters
- Applying for a job, interviews, CVs and applications
- Everyday communication in the working world
- Non-verbal communication and the significance of it in various communicative situations
- Book report
- Communication in Finland and abroad
- Language maintenance

### *Literature / Study Material*

Kauppinen A., Nummi J. & Savola T. 2005. Tekniikan viestintä. Edita.

### *Learning Methods*

- Group work
- Presentations,
- Spoken exercises

- Written exercises

#### *Assessment*

- Active participation in class
- Written assignments and exercises
- Exam

All parts must be successfully completed to receive a grade for the course.

#### *Languages of Instruction*

Finnish

#### *Further Information*

Pia–Mari Riihilahti

## **Communication and negotiation skills 2, 3 op KC23AK10029 (study unit)**

#### *Lecturers*

Helena Mikkilä

#### *Objectives*

Upon completion of the course, students will

- be familiar with the phases and advantages of process writing and know how to write clear documents,
- know how to write instructional texts,
- know how to write research texts, including sources and bibliography,
- have command of various public appearance and discussion situations encountered in the working world, and
- be competent in functioning in negotiations and meetings.

#### *Content*

- Instructional texts
- Proposals
- Reports
- Text analysis and criticism of sources
- Academic writing
- Argumentation
- Skills in making presentations and partaking in discussions
- Meetings
- Language maintenance

#### *Literature / Study Material*

- Kauppinen A., Nummi J. & Savola T. 2005. Tekniikan viestintä. Edita

#### *Learning Methods*

- Group work
- Presentations
- Spoken exercises
- Written assignments

#### *Assessment*

- Active participation in class
- Approved written assignments and exercises
- Exam

All parts must be successfully completed to receive a grade for the course.

#### *Languages of Instruction*

Finnish

#### *Further Information*

Helena Mikkilä

## **Swedish, 3 op KC23AK10031 (study unit)**

### *Lecturers*

Riikka Ala-Sankila

### *Objectives*

Upon completion of the course, students will be able to use Swedish in various situations in their profession, applying it in interactive communication. They will also know how to collect and make good use of information pertaining to their profession.

### *Content*

- Education
- Job applications and working
- Work environments and society
- Customer contacts
- General texts and field-specific texts
- Terminology used in mechanical and production engineering

### *Literature / Study Material*

- Husu, Wallinheimo: Flexteknik. Svenska för högskolor. Otava.
- Other material to be announced at the beginning of the course.

### *Learning Methods*

Lectures, listening comprehension, oral exercises, and written assignments independently, in pairs and in small groups.

### *Assessment*

- Active participation in lectures
- Approved mid-term and final exams

### *Languages of Instruction*

Finnish and Swedish

### *Further Information*

Riikka Ala-Sankila

## **Swedish, 3 op KC04AA10031 (study unit)**

### *Lecturers*

Riikka Ala-Sankila

### *Objectives*

Upon completing this course, students will be capable of using Swedish in various work-related situations in their own professional field. They will also be competent in interactive communication and in acquiring and utilizing field-related information.

### *Content*

- Education
- Applying for a job and work
- Work environment and society
- Customer contacts
- Standard texts
- Field-related terminology

### *Literature / Study Material*

- Husu, Wallinheimo: Flexteknik. Svenska för högskolor. Otava.
- Other material distributed by the lecturer

### *Learning Methods*

- Lectures
- Listening comprehension and oral exercises

- Written assignments in pairs, small groups and independently

#### *Assessment*

- Active participation in the lectures
- Approved interim and final exams

#### *Languages of Instruction* Swedish and Finnish

#### *Further Information* Riikka Ala-Sankila

### **English 1, 3 op** **KC23AK10041 (study unit)**

#### *Lecturers* Tapio Pihlajaniemi, MA

#### *Objectives*

Students will improve their oral and written language skills. Upon completion of the course, students will be competent in describing the type of education they have received and the work experience they have. They will be familiar with the job application process. Students will be introduced to the basics of written communication and writing business letters. They will be familiar with texts in the fields of mechanical and production engineering, and they will be able to understand and use the more common terminology in when speaking and writing.

#### *Content*

- Communicating effectively
- Sources for acquiring information and the Internet
- Compiling a CV and job application
- Basic texts associated with the field
- Informal oral presentation
- Texts in the course book

#### *Literature / Study Material* Isaacs, Palmroth, Rasimus, Rönkä: Engineer Your English. Edita.

#### *Learning Methods* Oral and written assignments in pairs or small groups and independently

#### *Assessment*

- Active participation in lectures and assignments
- Oral presentation and written exam
- Command of vocabulary
- Other assignments required during the course

#### *Languages of Instruction* Finnish and English

#### *Further Information* Tapio Pihlajaniemi

### **English 2, 3 op** **KC23AK10051 (study unit)**

#### *Lecturers* Anne Vuokila

#### *Objectives*

The aim of the course is to further students' oral and written language skills, as well as skills in written communication and business correspondence. Additionally, students will understand the more demanding terminology in their profession of mechanical and production engineering. They will be competent in using this terminology both orally and in writing.

#### *Content*

- Basic business correspondence and terminology

- Obtaining information from field–related texts
- Oral and written summaries
- Professionally–oriented oral presentations
- Texts in the course book
- Business expos
- Processes

#### *Literature / Study Material*

- Texts associated with the fields of mechanical and production engineering
- Other study material

The textbook to be used in the course will be announced at the beginning of the course.

#### *Learning Methods*

Oral and written assignments and exercises in pairs, in groups and individually

#### *Assessment*

- Active participation in lectures and exercises
- Oral presentation and written exam
- Command of vocabulary
- Other tasks required in the course

#### *Languages of Instruction*

Finnish and English

#### *Further Information*

Anne Vuokila

## **English 2, 3 op KC04AA10050 (study unit)**

#### *Lecturers*

Anne Vuokila

#### *Objectives*

- To advance oral and written skills
- Competence in written communication and advanced business correspondence
- Familiarisation with demanding, field–related texts and literature and understanding and using the terminology in those texts when speaking and writing

#### *Content*

- Basic business communication
- Some commercial terminology
- Information acquisition from field–related texts
- Oral and written summaries
- Oral, field–related presentation
- Texts from the textbooks
- Business expos
- Processes

#### *Literature / Study Material*

- Field–related texts and other material

The textbook to be used in the course will be announced at the beginning of the course.

#### *Learning Methods*

- Oral and written exercises
- Assignments and exercises in pairs, small groups and independently

#### *Assessment*

- Active participation in class and assignments

- Oral presentation and written exam
- Command of vocabulary
- Other tasks required during the course

*Languages of Instruction*  
Finnish and English

*Further Information*  
Anne Vuokila

## **English 3, 3 op** **KC23AK10061 (study unit)**

*Lecturers*  
Tapio Pihlajaniemi, MA

### *Objectives*

- To reinforce and maintain students' previous oral and written language skills
- To be able to compile a summary
- To have command of meeting procedures and terminology
- To understand extensive, field-related texts and competence in relating the key issues in the texts orally or in writing
- To have command of difficult terminology in writing and when speaking
- To prepare students to work in multi-national projects and business projects abroad

### *Content*

- Reading and writing technical texts
- Writing the abstract to the thesis
- Presentations
- Meetings
- Interviews
- Texts pertaining to students' professional field
- Texts in the textbook

### *Literature / Study Material*

- Field-related texts
- Other study material

The textbook to be used in the course will be announced at the beginning of the course.

### *Learning Methods*

Oral and written assignments and exercises in pairs, in groups and individually

### *Assessment*

- Active participation in lectures and exercises
- Oral presentation and written exam
- Command of vocabulary
- Other tasks required in the course

*Languages of Instruction*  
Finnish and English

*Further Information*  
Tapio Pihlajaniemi

## **English 3, 3 op** **KC04AA10060 (study unit)**

*Lecturers*  
Tapio Pihlajaniemi

### *Objectives*

- To advance skills in oral and written language



- To maintain and improve existing language skills
- To write a summary
- Competence in the procedures of a meeting and use of relevant vocabulary
- To handle demanding, field-related texts and to understand the vocabulary in them, and the ability to briefly explain the key issues in such texts either orally or in writing
- To use difficult vocabulary when speaking and writing
- To provide readiness for project studies on international project teams and in business projects abroad

#### *Content*

- Reading and writing technology-related texts
- Writing the abstract for a thesis
- Presentations
- Meetings
- Interviews
- Field-related texts
- Texts from the textbook

#### *Literature / Study Material*

- Field-related texts and other material

The textbook to be used during the course will be announced at the beginning of the course.

#### *Learning Methods*

- Oral and written exercises
- Assignments and exercises in pairs, small groups and independently

#### *Assessment*

- Active participation in class and assignments
- Oral presentation and written exam
- Command of vocabulary
- Other tasks required during the course

#### *Languages of Instruction*

- Finnish
- English

#### *Further Information*

Tapio Pihlajaniemi

### **Algebra and trigonometry, 4 op KC23AK10053 (study unit)**

#### *Lecturers*

Katja Miettinen, Juhani Paananen

#### *Objectives*

Students will achieve the mathematical skills needed in their studies in technology. They will achieve the level of advanced upper secondary school mathematics.

#### *Content*

- Literal calculations
- Simplification of algebraic expressions
- Equations and trigonometry

#### *Literature / Study Material*

- Antti Majaniemi: ALGEBRA I
- Antti Majaniemi: GEOMETRIA

#### *Learning Methods*

- Lectures, calculations and independent study

- NB! 80 % attendance required in the lectures

#### *Assessment*

Two mid-term exams or final exam and points from calculations. Students who have completed advanced mathematics in upper secondary school may take an exam at the beginning of the academic year to receive credit for the entire course.

#### *Languages of Instruction*

Finnish

#### *Further Information*

Katja Miettinen, Juhani Paananen

### **Vectors and analytic geometry, 3 op KC23AK10054 (study unit)**

#### *Lecturers*

- Heikki Kokkonen LA
- Katja Miettinen MSc (Eng.)

#### *Objectives*

Students will acquire basic knowledge in vector calculations and analytical geometry and know how to apply this knowledge in technology. Students will use this knowledge in their Professional Studies with which they will gain competence in technical-mathematical matters.

#### *Content*

- Vector calculations
- Analytic geometry
- Application of the above in technology

#### *Literature / Study Material*

- Antti Majaniemi: ALGEBRA I handout
- Antti Majaniemi: GEOMETRIA handout

#### *Learning Methods*

Lectures, calculations, and independent study

#### *Assessment*

Two mid-term exams or final exam and points from calculations

#### *Prerequisites*

Algebra and Trigonometry

#### *Languages of Instruction*

Finnish

### **Differential and integral calculus, 3 op KC23AK10055 (study unit)**

#### *Lecturers*

Heikki Kokkonen LA, Katja Miettinen MSc (Eng.)

#### *Objectives*

Students will acquire basic knowledge in one-variable differential and integral calculations. Students will also use this knowledge in their Professional Studies with which they will gain competence in technical-mathematical matters.

#### *Content*

One variable differential and integral calculations

#### *Literature / Study Material*

- Antti Majaniemi: MATEMATIIKKA I handout
- Antti Majaniemi: MATEMATIIKKA II handout

#### *Learning Methods*

Lectures, calculations and independent study

*Assessment*

Two mid-term exams or final exam and points from calculations

*Prerequisites*

Algebra and Trigonometry

*Languages of Instruction*

Finnish

*Further Information*

Heikki Kokkonen, Katja Miettinen

**Differential equations and business mathematics, 3 op  
KC23AK10056 (study unit)**

*Lecturers*

Heikki Kokkonen, LA

*Objectives*

Students will acquire basic knowledge in differential equations and economics. Students will also use this knowledge in their Professional Studies with which they will gain competence in technical-mathematical matters.

*Content*

Differential equations and economics

*Literature / Study Material*

- Antti Majaniemi: Matematiikka II handout
- Hand-outs by the teacher

*Learning Methods*

Lectures, calculations and independent study

*Assessment*

Two mid-term exams or final exam and points from the calculations

*Prerequisites*

- Algebra and Trigonometry
- Differential and Integral Calculus

*Languages of Instruction*

Finnish

**Computer aided mathematics, 3 op  
KC23AK10057 (study unit)**

*Lecturers*

Heikki Kokkonen, LA

*Objectives*

Students will acquire basic knowledge in mathematical software, statistics, and Excel. Students will use this knowledge in their Professional Studies with which they will gain competence in technical-mathematical matters. The student must accomplish the basic know-how of the course contents as stated below. This knowledge is needed in vocational subjects and mastering of which enables the command of demanding technical-mathematical knowledge.

*Content*

Mathematical software, statistics, and Excel

*Literature / Study Material*

Lecturer's hand-outs

*Learning Methods*

Lectures, calculations, and independent study

*Assessment*

Two mid-term exams or final exam and points for calculations

*Prerequisites*

Algebra and Trigonometry

*Languages of Instruction*

Finnish

**Mechanics, 3 op  
KC23AK10058 (study unit)**

*Lecturers*

Pasi Junell DSc (Tech.), Katja Miettinen MSc (Eng.)

*Objectives*

Students will acquire basic knowledge of physics for engineering. The course introduces a foundation for the comprehension of demanding technical information required for technical expertise in their profession.

*Content*

- Kinematics
- Newton's laws
- Work, power, energy, impulse
- Linear momentum
- Rotary moment
- Mechanics of solids and fluids

*Literature / Study Material*

- Hautala, Peltonen: Insinöörin (AMK) Fysiikka osa I. Lahden Teho–Opetus Oy.
- Lecture notes

*Learning Methods*

- Lectures, homework and calculations
- NB! 80 % attendance required

*Assessment*

Examination

*Languages of Instruction*

Finnish

**Thermal and electrical physics, 3 op  
KC23AK10059 (study unit)**

*Lecturers*

Pasi Junell, DSc (Tech.)

*Objectives*

Students will acquire basic knowledge of physics for engineering. The course introduces a foundation for the comprehension of demanding technical information required for technical expertise in their profession.

*Content*

- Basics of thermal physics
- Electrostatics
- Direct current
- Alternating current

*Literature / Study Material*

- Hautala, Peltonen: Insinöörin (AMK) Fysiikka osat I ja II. Lahden Teho–Opetus Oy.
- Lecture notes

*Learning Methods*

Lectures, homework and calculations

*Assessment*

Examination

*Prerequisites*

Mechanics

*Languages of Instruction*

Finnish

**Wave and modern physics, 3 op  
KC23AK10063 (study unit)**

*Objectives*

Students will acquire basic knowledge of physics for engineering. The course introduces a foundation for the comprehension of demanding technical information required for technical expertise in their profession.

*Content*

- Oscillatory motion
- Wave motion
- Acoustics
- Wave optics
- Geometric optics
- Quantized radiation
- X-rays
- Lasers
- Nuclear physics

*Literature / Study Material*

- Hautala, Peltonen: Insinöörin (AMK) Fysiikka osa II. Lahden Teho–Opetus Oy.
- Lecture notes

*Learning Methods*

Lectures, homework and calculations

*Assessment*

Written course–end examination

*Prerequisites*

Mechanics

*Languages of Instruction*

Finnish

**Physics laboratory works, 3 op  
KC23AK10064 (study unit)**

*Lecturers*

Pasi Junell, DSc (Tech.)

*Objectives*

The course provides students with basic knowledge of experimental measurements as well as processing and reporting the results. Applications of experimental physics for various fields of engineering will be introduced.

*Content*

Laboratory experiments from different areas of physics and technology

*Literature / Study Material*

Instructions for exercises in physics (Seinäjoki University of Applied Sciences, School of Engineering).

*Learning Methods*

Laboratory experiments (minimum 90 % attendance required) and written reports

*Assessment*

Reports and written examination

*Prerequisites*

Mechanics

*Languages of Instruction*

Finnish

**Basics of chemistry, 3 op  
KC23AK10151 (study unit)**

*Objectives*

The course introduces students to the chief aspects of general and inorganic chemistry.

*Content*

The course involves discussion of atoms and chemical compounds, mass, forms of substances, chemical reactions and calculations, combustion, acids and alkalines, electrochemistry and corrosion, as well as safe working methods.

*Literature / Study Material*

Lecturer's material

*Learning Methods*

Lectures, calculations, assignments

*Assessment*

Written examination, assignment

*Prerequisites*

Completed relevant courses in upper secondary school or vocational school

*Languages of Instruction*

Finnish

**Office applications, 3 op  
KC23AK10066 (study unit)**

*Lecturers*

Hilkka Niemelä, MA

*Objectives*

Students will be familiar with the office software used in the university and learn to use the programmes and systems they need in their studies.

*Content*

- Seinäjoki UAS's Intranet, transcript register, online learning environment
- Online services: e-mail and websites
- Data processing programmes, spreadsheets and graphics programmes

*Literature / Study Material*

- Guidebooks for software applications
- Online learning material

*Learning Methods*

Lectures, exercises and independent study

*Assessment*

- Computer exam
- Approved exercises

*Languages of Instruction*

Finnish

*Further Information*

Hilkka Niemelä

**Engineering drawing and CAD, 6 op  
KC23BK20012 (study unit)**

*Lecturers*

Jukka Aarnio DSc (Tech.)

### *Objectives*

Students will learn manual and computer-aided methods for designing and dimensioning machines and machine parts in accordance with regulations and standards, while taking into account production methods.

### *Content*

- Significance of mechanical design
- Projections
- Cutting
- Measurement
- Surface markings
- Welding marks
- Tolerances
- Assembly drawings
- CAD 2D and 3D modelling

### *Literature / Study Material*

- Pere: Koneenpiirustus
- Autio: Koneenpiirustus

### *Learning Methods*

- Lectures
- Manual exercises
- Supervised CAD work
- Independent study
- Assignments

### *Assessment*

Examinations and exercises

### *Languages of Instruction*

Finnish

### *Further Information*

Jukka Aarnio

## **Material technique 1, 3 op KC23BK20030 (study unit)**

### *Lecturers*

Jukka Pajula MSc (Eng.)

### *Objectives*

Students will be familiar with construction materials, their properties, handling, standards and selection.

### *Content*

- Operating properties and materials testing
- Internal structure of metals
- Constitutional diagram
- Thermal treatment
- Steel and cast iron
- Other alloys

### *Literature / Study Material*

Koivisto, K. et al. Konetekniikan materiaalioppi.

### *Learning Methods*

Lectures, exercises, laboratory work

### *Assessment*

Examination, assignments and laboratory exercises

### *Languages of Instruction*

Finnish

*Further Information*

Jukka Pajula

**Manufacturing technology, 3 op  
KC23BK20032 (study unit)**

*Lecturers*

Kimmo Kitinoja

*Objectives*

Students will be familiar with the more common manufacturing methods, machines and tools in the engineering industry.

*Content*

- Welding methods
- Casting
- Powder metals
- Methods for forming and removing material
- Working with sheet metal
- Coating
- Measuring

*Literature / Study Material*

- Ihalainen et al. Valmistustekniikka. Otatieto.
- Other lecture material

*Learning Methods*

Lectures, visits to factories, exercises and independent study

*Assessment*

Examination and exercises

*Languages of Instruction*

Finnish

*Further Information*

Kimmo Kitinoja

**Statics, 3 op  
KC23BK20051 (study unit)**

*Lecturers*

Jukka Aarnio

*Objectives*

Upon completion of the course, students will possess basic knowledge of statics and the ability to use that knowledge in simple structures.

*Content*

- Basic principles of mechanics
- Combination of forces
- Moment of force
- Types of support
- Center of gravity
- Equilibrium in relation to particles and solids
- Loads and load diagrams of beams
- Statics of structures
- Friction
- Principle of virtual work
- Machines in mechanics

*Literature / Study Material*

- Kärkkäinen M. & Mikkonen P. Insinöörin mekaniikka.
- Outinen H. Statiikka I ja II.
- Lecture material



### *Learning Methods*

Lectures and exercises, independent study

### *Assessment*

Examination and exercises

### *Languages of Instruction*

Finnish

### *Further Information*

Jukka Aarnio

## **Dynamics, 3 op KC23BK20062 (study unit)**

### *Lecturers*

Markku Kärkkäinen MSc (Eng.)

### *Objectives*

Upon completion of the course, students will possess basic knowledge of dynamics and the ability to use that knowledge to solve practical problems. They will also have an understanding of the basic phenomena of mechanical vibrations.

### *Content*

- Basic principles of dynamics
- Kinematics of particles
- Kinematics of solids
- Basic principles of kinetics
- Vibrations of a system with a single degree of freedom
- Energy principle

### *Literature / Study Material*

- Salmi T. & Virtanen S. Dynamiikka. (Assigned sections)
- Lecture material

### *Learning Methods*

Lectures and exercises, independent study

### *Assessment*

Examination

### *Prerequisites*

Statics

### *Languages of Instruction*

Finnish

### *Further Information*

Markku Kärkkäinen

## **Strength of materials 1, 4 op KC23BK20071 (study unit)**

### *Lecturers*

Mika Kumara, LSc (Tech.)

### *Objectives*

Upon completion of the course, students will possess basic knowledge of the strength and elasticity of materials and the ability to apply this knowledge to the components and structures of machines.

### *Content*

- Basic concepts of the strength of materials
- Tension in structures
- Changes in form and dimensioning in cases of tension, compression, shearing, bending
- Torsional load

*Literature / Study Material*

Karhunen et al. Lujuusoppi

*Learning Methods*

Lectures and exercises, independent study

*Assessment*

Examination and exercises

*Prerequisites*

Statics

*Languages of Instruction*

Finnish

*Further Information*

Mika Kumara

**Machine elements, 4 op  
KC23BK20092 (study unit)**

*Lecturers*

Mika Kumara

*Objectives*

Students will gain insight into how machine components work and dimensioning, and they will be capable of selecting parts from standards and catalogues.

*Content*

- Component calculations and basis of design
- Joints
- Revolving components: axle connections, parallel bearings, roll bearings, shaft couplings, springs, brakes, chain and belt drives, toothed wheels and gears

*Literature / Study Material*

To be announced during the lectures.

*Learning Methods*

Lectures and exercises, independent study

*Assessment*

Examination and exercises

*Prerequisites*

Strength of Materials 1

*Languages of Instruction*

Finnish

*Further Information*

Mika Kumara

**Electrical engineering and electronics, 4 op  
KC23BK20101 (study unit)**

*Objectives*

Upon completion of the course, students will be familiar with the more important concepts and calculation methods used in theoretical electrical engineering. They will also acquire a general view of the possibilities of electronics in mechanical engineering applications. Students will know the more important components used in electronics.

*Content*

- Basics in electrical engineering and methods of calculation
- Basic structures and features of various types of motors
- Basic components of electronics: diodes, transistors, operation amplifiers and their operating principles, basic circuits in analog technology
- Basics in digital electronics

- Boole algebra
- Logic ports

*Literature / Study Material*

To be announced during the course.

*Learning Methods*

Lectures and exercises, independent study

*Assessment*

Written examination and exercises

*Languages of Instruction*

Finnish

## **Industrial economics, 3 op KC23BK20132 (study unit)**

*Lecturers*

Lasse Tarhala MSc (Eng.)

*Objectives*

Students will acquire knowledge of issues related to a company's production economics.

*Content*

- Production planning, productivity, growth, profitability, liquidity and financial solidity
- Investment calculations, budgeting, key ratios
- Rationalization and analysing performed work in the metal industry
- Materials management
- Fundamentals of marketing
- Quality

*Literature / Study Material*

Uusi-Rauva, Haverila & Kouri: Teollisuustalous

*Learning Methods*

Lectures and exercises, independent study

*Assessment*

Examination and seminar work

*Languages of Instruction*

Finnish

*Further Information*

Lasse Tarhala

## **Sustainable development, 3 op KC23BK20135 (study unit)**

*Lecturers*

Jorma Tuomisto MSc (Eng.)

*Objectives*

Students will gain comprehensive insight into environmental protection and the opportunities afforded by technology. They will understand the prerequisites for sustainable development and have a positive and responsible attitude toward environmental protection.

*Content*

- Climate, air quality, inland surface and ground water, soil, Baltic Sea and its environs
- Impact of humans on the environment, preventing negative impacts on the environment, purifying contaminated soil
- Sustainable development, energy-efficient technology, Act on Waste, sorting, handling and recycling waste and final disposal
- Environmental systems, environmental licenses, environmental administration, directive on chemicals and the European Chemical Agency

*Literature / Study Material*

Lecturer's material

*Learning Methods*

Lectures and assignment

*Assessment*

Written examination and assignment

*Languages of Instruction*

Finnish or English if necessary

*Further Information*

jorma.tuomisto@seamk.fi

**Basic studies in mechanical introduction, 2 op  
KC23BK20137 (study unit)**

*Lecturers*

Hannu Ylinen and Juho Yli-Suomu

*Objectives*

Students will be aware of the safety factors involved in laboratory work. They will be familiar with the basic tools used in engineering shops. Students will also understand the basic concepts associated with the structure of an automobile. The course also provides students with basic knowledge needed in the Professional Studies for automotive engineering.

*Content*

- General occupational safety in a machine laboratory, machine-specific safety factors
- Basic training in the use of the following machines for the engineering industry: saws, lathes, milling machines, plate shears, and welding machines
- Equipment for automobile chassis and controls, transmission gears, motors, electrical devices, and electronic systems

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Laboratory work and independent study

*Assessment*

Assignments and exam

*Languages of Instruction*

Finnish

*Further Information*

Hannu Ylinen or Juho Yli-Suomu

**PROFESSIONAL STUDIES MODULES, 45 op  
KC23BK30 (study entity)**

Compulsory modules in the Professional Studies include Production Engineering, Mechanical Engineering and Business Operations.

**Production technology module, 15 op  
KC23KO50 (study entity)**

The purpose of the Production Technology Module is to provide students with knowledge of production systems and how to control them.

**Module in automotive engineering, 15 op  
KCAA10 (study entity)**

The Automotive Technology Module provides students with knowledge pertaining to the mechanics and structure involved in the movement of automobiles.

## **NC technology, 3 op KC23BK30011 (study unit)**

### *Lecturers*

Kimmo Kitinoja MSc (Eng.)

### *Objectives*

Students will acquire basic knowledge of automatic manufacturing and programming.

### *Content*

- NC machines
- Programming codes
- Interactive programming
- CAD/CAM systems

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, exercises, laboratory work and independent study

### *Assessment*

Examination/laboratory work: 70/30

### *Prerequisites*

Manufacturing Technology

### *Languages of Instruction*

Finnish

## **Vehicle laws, 2 op KC04BA40101 (study unit)**

### *Objectives*

Students will understand the legislation concerning the automobile industry and how to apply it in practice.

### *Content*

- Vehicles Act
- Decree on Vehicle Construction and Equipment
- Decree on the Use of Vehicles on the Road
- Structural changes and assembling an automobile from parts
- Installation and repair permits
- Occupational safety legislation

### *Literature / Study Material*

Vehicle regulations

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and exercises: 80/20

## **Production systems, 3 op KC23BK30021 (study unit)**

### *Lecturers*

Kimmo Kitinoja MSc (Eng.)

### *Objectives*

Students will acquire knowledge of various methods of production in industrial enterprises and understand their significance in production.

### *Content*

- Flow of manufacture

- Assembly
- Automation
- Tools
- Control and controllability
- Data systems

*Literature / Study Material*

Lapinleimu et al. Kone- ja metalliteollisuuden tuotantojärjestelmät

*Learning Methods*

Lectures, group work, exercises, and independent study

*Assessment*

Examination/exercises: 70/30

*Prerequisites*

Manufacturing Technology

*Languages of Instruction*

Finnish

## **Automotive engineering 1, 3 op KC04BA40031 (study unit)**

*Lecturers*

Jukka Pajula MSc (Eng.)

*Objectives*

Student will understand the factors affecting fuel consumption and the formation of driving resistance under various circumstances. They will be able to determine the factors corresponding to the performance of a car.

*Content*

- Driving resistance
- Basic, operational principles of the engine and transmission
- Diagrams of the driving space
- Acceleration
- Choosing transmission drive gear
- Fuel consumption
- Durability
- Limitations of acceleration and ascent

*Literature / Study Material*

- Laine, O. Autotekniikka.
- Field-related publications
- Lecturer's material

*Learning Methods*

Lectures, exercises, and diagrams of the driving space

*Assessment*

Examination and approved exercises

*Languages of Instruction*

Finnish

## **Quality technology, 3 op KC23BK30031 (study unit)**

*Lecturers*

Kimmo Kitinoja MSc (Eng.)

*Objectives*

Upon completion of the course, students will understand the importance of quality in the various operations within a company, and be familiar with the more important philosophies and terminology associated with quality assurance and understand the importance of the continuous improvement of quality.

### *Content*

- Importance of quality
- Quality control
- Quality control handbook
- Quality control costs
- Societal impacts of quality
- Continuous improvement of quality
- ISO 9000 quality standard
- Finnish quality award
- Malcolm Baldrige quality award
- Six sigma

### *Literature / Study Material*

- Lecklin Olli: Laatu yrityksen menestystekijänä
- Lecture material

### *Learning Methods*

Lectures, exercises and assignments, and independent study

### *Assessment*

Written examination and assignments

### *Languages of Instruction*

Finnish

### *Further Information*

Kimmo Kitinoja

## **Automotive engineering 2, 3 op KC04BA40021 (study unit)**

### *Objectives*

Students will understand how the steering of a vehicle reacts in various situations, and be able to dimension the mentioned systems.

### *Content*

- Angles of wheels and pivoted axles and measurement of them
- Steering devices
- Tyres
- Rims
- Balancing
- Cornering ability and the properties of side-wind

### *Literature / Study Material*

- Laine O: Autotekniikka 1
- Field-related publications and literature on maintenance
- Lecturer's material
- Calculation programmes

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and exercises: 70/30

### *Languages of Instruction*

Finnish

## **Production management, 3 op KC23BK30041 (study unit)**

### *Lecturers*

Kimmo Kitinoja MSc (Eng.)

### *Objectives*

Students will understand the concepts and terminology associated with production management, as well as the problems, needs and aims in production management.

### *Content*

- Organisation of production management
- Significance of various forms of production as regards production management
- Common production management systems

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, exercises, and independent study

### *Assessment*

Examination/exercises: 70/30

### *Languages of Instruction*

Finnish

## **Automotive engineering 3, 4 op KC04BA40072 (study unit)**

### *Objectives*

Upon completion of the course, students will be familiar with the behaviour of braking systems in various situations and the fundamentals and strain of suspension. They will be able to make measurements of the mentioned systems. Students will understand the structure and design of transmission system shafts and tandem axles as well as how they function.

### *Content*

- Drum and disc brakes
- Hydraulic brake systems
- Types of suspension and the basics of their design
- Clutches
- Gears and choosing gear ratios
- Final drives
- Differential gears
- S4 traction systems

### *Literature / Study Material*

- Laine O: Autotekniikka 2
- Vehicle regulations
- Bosch: Autoteknillinen taskukirja
- Field-related publications and literature pertaining to maintenance
- Lecturer's material
- Calculation programmes
- BrakeWin programme

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and exercises: 70/30

### *Languages of Instruction*

Finnish

## **Production technology laboratory work, 3 op KC23BK30051 (study unit)**

### *Lecturers*

- Kimmo Kitinoja MSc (Eng.)
- Juho Yli-Suomu, BSc



### *Objectives*

Students will be competent in applying their acquired knowledge to the production, management and development of production systems.

### *Content*

Various topics related to production technology

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Laboratory work and independent study

### *Assessment*

Laboratory work

### *Prerequisites*

- Manufacturing Technology
- NC Technology
- Production Systems
- Production Management

### *Languages of Instruction*

Finnish

## **Engine technology, 3 op KC04BA60022 (study unit)**

### *Objectives*

Students will understand the general structures of engines, thermal processes, and the stress on mechanisms in relation to design, use and maintenance. They will familiarise themselves with fuel and exhaust systems and their maintenance.

### *Content*

- Combustion engines
- Thermodynamics
- Concepts of power recovery and coefficients of performance
- Structures and maintenance of crank mechanisms and valve gears
- Vibration dampers
- Lubrication and cooling
- Fuel devices
- Fuel and exhaust and measuring exhaust
- Super-charging

### *Literature / Study Material*

- Bosch: Autoteknillinen taskukirja
- Field-related literature and publications

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and exercises: 70/30

### *Languages of Instruction*

Finnish

## **Mechanical engineering module, 15 op KC23KO60 (study entity)**

The purpose of the Mechanical Engineering Module is to familiarise students with the designing and product development of mechanical structures and hydraulic and pneumatic systems.

## **Automotive Electronics Module, 15 op KCAA50 (study entity)**

The Automotive Electronics Module familiarizes students with the methods involved in applied automotive electronics, testing and measurement.

### **Strength of materials 2, 3 op KC23BK40011 (study unit)**

#### *Lecturers*

Mika Kumara, LSc (Tech.)

#### *Objectives*

Students will be familiar with the principles of the elasticity theory.

#### *Content*

- Bending a curved rod
- Stress state
- State of changing form
- Connection between tension and the state of changing form
- Strength hypotheses
- Fatigue

#### *Literature / Study Material*

To be announced during the course.

#### *Learning Methods*

Lectures and exercises, independent study

#### *Assessment*

Examination and exercises

#### *Prerequisites*

Strength of Materials 1

#### *Languages of Instruction*

Finnish

#### *Further Information*

Mika Kumara

## **Automotive electrical and electronic systems, 3 op KC04BA50071 (study unit)**

#### *Objectives*

Students will acquire knowledge concerning the more common electronic systems in automobiles as well as their properties and how to use them. They will be able to interpret and compile plans for the installation and wiring of electronic equipment and be familiar with inspection and trouble shooting.

#### *Content*

- Electricity diagrams
- Electronic clutches
- Batteries
- Lights
- Ignition, charging and starting systems
- Other electronic equipment

#### *Literature / Study Material*

- Juhala et al. Moottorialan sähköoppi
- Field-related publications and maintenance literature

#### *Learning Methods*

Lectures and exercises

*Assessment*  
Examination

*Languages of Instruction*  
Finnish

**Hydraulics and pneumatics, 5 op**  
**KC23BK40012 (study unit)**

*Lecturers*  
Kimmo Kitinoja

*Objectives*  
Students will understand how the central components in hydraulic and pneumatic systems work and have command of the principles of theory and design for both types of systems. Additionally, students will be familiar with the areas where hydraulics and pneumatics can be used and be able to choose a suitable system as needed.

*Content*

- Basic theory of hydraulics and pneumatics, structures of components and how they work
- General perspectives on design, dimensioning components, selection and systems design
- Devices that produce, control and regulate pressurized energy
- Hydraulic and pneumatic devices, reservoirs, pipes and auxiliary devices
- Basics in proportional, munition and servotechnologies

*Literature / Study Material*

- Kauranne, Kajaste, Vilenius: Hydraulitekniiikan perusteet.
- Other material to be announced at the beginning of the course

*Learning Methods*  
Lectures, laboratory work, assignments and independent study

*Assessment*  
Assignments, mid-term tests/exam

*Languages of Instruction*  
Finnish

**Automotive and work machine electronics 1, 3 op**  
**KC04BA50052 (study unit)**

*Objectives*  
Students will be familiar with the more common electronic equipment in automobiles and machinery, the basic properties of the mentioned equipment and how to use it. They will understand the designs for installing and connecting electronic equipment, the general ways to enter information into the mentioned systems, as well as testing and troubleshooting.

*Content*

- Electronic components and circuit technology
- Sensor technology
- Electronic fuel injection systems for Otto-cycle engines and diesel engines
- OBD
- Testing technology

*Literature / Study Material*

- Juhala et al. Moottorialan sähköoppi
- Bosch: Autoteknillinen taskukirja
- Field-related publications and maintenance literature

*Learning Methods*  
Lectures and exercises

*Assessment*  
Examination and exercises: 80/20

### *Prerequisites*

Automotive Electronic Systems

## **Welding technology, 4 op KC23BK40013 (study unit)**

### *Lecturers*

Kimmo Kitinoja

### *Objectives*

Students will acquire basic knowledge in how the more common metals can be welded, and they will be familiar with various welding methods and how to use them. They will also be introduced to the mechanization and automation of welding.

### *Content*

- Welding methods
- Welding various metals
- Changes in shape
- Welding mistakes
- Planning welded joints and costs

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, assignments and independent study

### *Assessment*

Exam/assignments: 70/30

### *Prerequisites*

Materials Technology 1

## **Automotive and work machine electronics 2, 3 op KC04BA50053 (study unit)**

### *Objectives*

Students will be familiar with the more common types of electronic devices and systems in automobiles and machinery, their basic properties and how to use them. They will understand the plans for installing and connecting electronic equipment, the general ways to enter information into the mentioned systems, as well as testing and troubleshooting.

### *Content*

- Electronically controlled gearboxes
- Anti-locking and anti-skidding systems
- ESP system
- Adjusting electronic suspension and shock absorption
- Proportional valve technology
- Electronically steering machinery
- Routing technology

### *Literature / Study Material*

- Juhala et al. Moottorialan sähköoppi
- Bosch: Autoteknillinen taskukirja
- Field-related publications and maintenance literature

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and exercises: 80/20

### *Prerequisites*

Automotive and Machinery Electronics 1

### *Languages of Instruction*

Finnish

## **Product development, 3 op KC23BK40051 (study unit)**

### *Lecturers*

Jorma Nevaranta LSc (Tech.)

### *Objectives*

Upon completion of the course, students will understand the entire product development process and possess competency in working on product development teams.

### *Content*

- Production process and organisation models
- Identifying the needs of customers
- Designing concepts and determining product specifications
- Industrial design
- Design that facilitates manufacturing
- Prototypes in product development
- Controlling costs in product development projects
- Patents and trademarks
- Managing project portfolios

### *Literature / Study Material*

- Jokinen T.: Tuotekehitys
- Aalto A.: Projektisalkun johtaminen
- Lecture material

### *Learning Methods*

Lectures and exercises, independent study

### *Assessment*

Examination and exercises

### *Languages of Instruction*

Finnish

### *Further Information*

Jorma Nevaranta

## **Automotive laboratories, 6 op KC04BA50072 (study unit)**

### *Lecturers*

Ari Itämäki

### *Objectives*

Students will learn about the most common measurements in automobiles and be familiar with garage equipment, meters and instruments and their use in troubleshooting.

### *Content*

- Inspections of driving space, movement, steering, braking and engines
- Inspections of fuel and exhaust systems for Otto cycle and diesel engines
- Ignition, charging and ignition system measurements
- Inspections of lights, noise, vibration and rocking
- Wheel alignment

### *Literature / Study Material*

- Material relating to automotive and body technology
- Repair shop guidebooks
- Equipment settings manuals

### *Learning Methods*

Laboratory work and reports

### *Assessment*

Approved assignments and reports: 50/50

### *Languages of Instruction*

Finnish

## **Entrepreneurship module, 15 op KC23KO80 (study entity)**

The aim of the Business Operations Module is to familiarise students with the business world in general and its various sectors in more detail, including business economics, financing accountancy, marketing, and personnel management. A business-related project, and courses in process management and strategic accounting may also be included in the module.

## **Work Machine Engineering Module, 15 op KCBA60 (study entity)**

The Machinery Engineering Module familiarizes students with the engineering of machinery and farming machinery technology.

## **Marketing, 3 op KC23BK60005 (study unit)**

### *Objectives*

Upon completion of the course, students will possess knowledge of customer-oriented marketing concepts, models, and marketing strategy and its operational implementation. Students will also understand customer relationship management as a critical success factor for a company.

### *Content*

- Operational environments and forms of marketing
- Customer-oriented marketing
- Segmentation and focused marketing
- Internal marketing and organisation of marketing: structure and resources
- New competition in the service economy and customer relationship management
- Role of communication in marketing
- Service culture

### *Literature / Study Material*

- Lahtinen & Isoviita. 2001. Asiakaspalvelun ja markkinoinnin perusteet.
- Grönroos. Palveluiden johtaminen ja markkinointi.

### *Learning Methods*

- Project work
- Lectures
- Case studies
- Marketing simulations
- Independent study

### *Assessment*

Examination/projects and case studies: 80/20

### *Prerequisites*

Industrial Economics

### *Languages of Instruction*

Finnish

## **Hydraulics, 3 op KC04BA60033 (study unit)**

*Lecturers*

Kimmo Kitinoja

*Objectives*

Students will understand the more important concepts associated with hydraulic systems and their design.

*Content*

- Structure and function of hydraulic components
- Equipment that produces, controls and regulates compressed energy
- Common devices, reservoirs, pipes and accessories
- Fundamentals of proportional, cartridge and servo-technology
- Perspectives of general planning

*Literature / Study Material*

Kauranne, Kajaste, Vilenius: Hydraulitekniiikan perusteet

*Learning Methods*

Lectures and exercises

*Assessment*

Examination/exercises: 70/30

*Languages of Instruction*

Finnish

**Business economics, 4 op  
KC23BK60021 (study unit)**

*Lecturers*

Lasse Tarhala

*Objectives*

Upon completion of the course, students will understand the complexity of entrepreneurship and the business world. They will also be familiar with the basics of business operations and possess the knowledge needed to establish their own business and manage it.

*Content*

- Innovations and business ideas
- Choosing a company type
- Establishing a business, business operations: production, financing and marketing
- Internal accounting, taxation and financial matters in a company

*Literature / Study Material*

Lecturer's material

*Learning Methods*

Lectures, exercises and project work

*Assessment*

Lectures/independent study: 50/50

*Prerequisites*

Industrial Economics

*Languages of Instruction*

Finnish

**Mobile work machines, 3 op  
KC04BA60032 (study unit)**

*Lecturers*

Mika Kumara

*Objectives*

Students will possess knowledge of the more significant mobile machines, including their design, use and function.

### *Content*

Mobile crawler and wheel-mounted machines, e.g. earthwork machinery and forest machinery

### *Literature / Study Material*

- Field-related literature and publications
- Manufacturer's material

### *Learning Methods*

Lectures and assignments

### *Assessment*

Examination and exercises: 60/40

### *Languages of Instruction*

Finnish and English

## **Project leadership, 4 op KC23BK60050 (study unit)**

### *Lecturers*

Lasse Tarhala MSc (Eng.)

### *Objectives*

The aim of the course is to provide students with basic knowledge and skills in the principles and methods involved in project work. They will also be competent in carrying out a project.

### *Content*

- Goal-oriented development through projects
- Project preparation, planning, and implementation, decision-making
- Principles and methods of project work
- Project organisation and operation
- Time, resource and cost management in project planning
- Special features of projects carried out in the Finnish Funding Agency for Technology and Innovation

### *Literature / Study Material*

- Lanning, Roiha & Salminen. 1999. Matkaopas muutokseen.
- Kettunen S. 2003. Onnistu projektissa.
- Lecture material

### *Learning Methods*

Project work, lectures and case studies

### *Assessment*

Examination and exercises

### *Prerequisites*

Industrial Economics

### *Languages of Instruction*

Finnish

## **Commercial vehicles, 4 op KC04BA60070 (study unit)**

### *Objectives*

Students will possess knowledge of heavy-duty automotive body technology, measurements, and the concepts associated with structural engineering.

### *Content*

- Constructing and servicing heavy-duty automotive bodies
- Measurement regulations
- Calculating weight and dimensions
- Choosing a chassis
- Body structures and components



- Designing and choosing vehicle equipment
- Pneumatic brake systems
- Structures of axles and transmissions
- Polar clearances

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures and exercises

*Assessment*

Examination and exercises: 60/40

*Languages of Instruction*

Finnish

## **Human resources management, 4 op KC23BK60062 (study unit)**

*Objectives*

The aim of the course is to familiarise students with the basic issues involved in operational and strategic human resources management from the point of view of both individuals and the processes involved.

*Content*

- Human resources management today, with focus on the learning organisation
- Strategic dimensions in human resources management and company culture
- Leadership in changing organisations, situation management and interaction
- Individuals as part of the work community (motivation, commitment and superior/subordinate dialogs)
- Development of expertise
- Collective agreements and labour legislation

*Literature / Study Material*

- Riitta Viitala. 2000. Henkilöstöjohtaminen.
- Lecturer's material

*Learning Methods*

- Active participation in lectures and group work
- Seminars and approved assignments
- Final exam

*Assessment*

Examination/assignments: 80/20

*Prerequisites*

Industrial Economics

*Languages of Instruction*

Finnish

## **Farming machinery engineering, 3 op KC04BA70011 (study unit)**

*Objectives*

Students will be familiar with the structure, function and design of the more common farming machinery.

*Content*

- Structures of tractors, properties, engines, steering devices, transmissions, brakes, tyres, attaching machinery, and hydraulics
- Harvesting and threshing mechanisms in combine harvesters, separators and conveyors, power transmission and utilising electronics
- Soil cultivators, hoppers and fertilizer spreaders, plant protection sprays, bailers and feed machines

### *Literature / Study Material*

Field-related literature and publications

### *Learning Methods*

Lectures and exercises

### *Assessment*

Examination and exercises: 80/20

## **OPTIONAL PROFESSIONAL STUDIES MODULES, 15 op KC23CK70000 (study entity)**

The Technological Mechanics Module, Materials Design Module and the Automation Systems Module are elective modules, but one of them must be chosen as a compulsory module.

## **Work machine engineering laboratories, 2 op KC04BA70050 (study unit)**

### *Objectives*

Upon completion of the course, students will be familiar with the concepts associated with the dimensioning, servicing, and troubleshooting of farming equipment and machinery.

### *Content*

To be announced when the laboratory work begins.

### *Literature / Study Material*

- Material pertaining to automotive and body technology
- Repair shop manuals
- Equipment and settings manuals

### *Learning Methods*

Laboratory work and reports

### *Assessment*

Approved lab work and reports: 50/50

## **Applied mechanics module, 15 op KC23KO90 (study entity)**

The purpose of the Technological Mechanics Module is to deepen students' knowledge of how to analyse the mechanical behaviour of various structures.

## **Module in entrepreneurship, 15 op KC04CA85 (study entity)**

The aim of the Business Operations Module is to familiarise students with business operations in general and its various sectors, such as business economics, finance accounting, marketing and personnel management, in more detail.

## **Matrix algebra, 3 op KC23CK70011 (study unit)**

### *Lecturers*

- Mika Kumara, LSc (Tech.)
- Pasi Mikkonen, PhD

### *Objectives*

Upon completion of the course, students will possess basic knowledge of matrices and matrix algebra needed in the courses Finite-element Methods, Mechanics of Vibrations and Simulation of Machines.

### *Content*

- Definitions, transposing, determinant, inverse of a matrix
- Solving a linear system of equations
- Gauss elimination method
- Eigenvalues and eigenvectors

- Diagonalisation
- Use of mathematics software

#### *Literature / Study Material*

Lecture material

#### *Learning Methods*

Lectures and exercises, independent study

#### *Assessment*

Written examination, exercises

#### *Languages of Instruction*

Finnish

### **Repair shop economy, 4 op KC04BA60060 (study unit)**

#### *Lecturers*

Hannu Ylinen

#### *Objectives*

Students will learn the fundamentals of and solutions for garage design, as well as be familiar with environmental issues, personnel and customer relations, job organisation, cost planning and follow-up and rationalisation of garage equipment and garage operations.

#### *Content*

- Car dealers and customers
- Garage organisations
- Work flow in a garage
- Garage design
- Garage networks
- Waste disposal for garages
- Terms of repair and consumer protection
- Furnishings and equipment
- Cost calculations
- Profitability
- Rationalisation

#### *Literature / Study Material*

Field-related publications, importer's instructions and lecturer's material

#### *Learning Methods*

Lectures and exercises

#### *Assessment*

Examination and exercises: 70/30

#### *Languages of Instruction*

Finnish

### **Finite-element method, 4 op KC23CK70021 (study unit)**

#### *Lecturers*

Mika Kumara

#### *Objectives*

Upon completion of the course, students will possess the ability to use finite-element methods in the dimensioning of structures and understand the basic principles of the use of FEM software in static analyses of structures.

#### *Content*

- Basic principles of finite-element methods
- Stiffness matrix, summing of elements, burden, limitations, basic equations
- Rod, beam, plate, shell and tile structures

### *Literature / Study Material*

Lecture material

### *Learning Methods*

Lectures and exercises, independent study

### *Assessment*

Written examination, exercises

### *Prerequisites*

- Strength of Materials 1 and 2
- Matrix Algebra

### *Languages of Instruction*

Finnish

### *Further Information*

Mika Kumara

## **Project leadership, 4 op KC04BA84000 (study unit)**

### *Lecturers*

Lasse Tarhala MSc (Eng.)

### *Objectives*

Students will understand the fundamental concepts and methods involved in projects, and acquire competency in carrying out all phases of a project.

### *Content*

- Goal-oriented development in the form of projects
- Preparation, planning, implementation and establishment
- Principles and methods of project work
- Project organisation and how it works
- Managing time, resources and costs in project planning

### *Literature / Study Material*

- Lanning, Roiha & Salminen. 1999. Matkaopas muutokseen.
- Kettunen S. 2003. Onnistu projektissa

### *Learning Methods*

Project work, lectures and case studies

### *Assessment*

Project plan, implementation and final report: 100 %

## **Mechanical vibrations, 4 op KC23CK70031 (study unit)**

### *Lecturers*

Mika Kumara

### *Objectives*

Upon completion of the course, students will understand vibration phenomena and their significance in mechanical engineering. They will also understand the basic principles of the use of FEM softwares in dynamic analyses of structures.

### *Content*

- Mathematical illustrations of vibration
- Vibrations of one degree of freedom
- Vibrations of many degrees of freedom
- Natural frequencies and natural modes
- Damping

*Literature / Study Material*

Lecture material

*Learning Methods*

Lectures and exercises, independent study

*Assessment*

Written examination, exercises

*Prerequisites*

- Dynamics
- Finite–element Methods

*Languages of Instruction*

Finnish

*Further Information*

Mika Kumara

**Automotive marketing and services, 3 op  
KC04BA85022 (study unit)**

*Objectives*

Students will understand general marketing concepts, as well as procedures involved in finance, sales and services in the automobile field.

*Content*

- Development of marketing and competitive tools (product, price, distribution, communication)
- Spare parts and garage sales
- Vehicle sales process
- General terms of sale
- Consumer protection
- Customer services

*Literature / Study Material*

Field–related literature and publications

*Learning Methods*

Lectures and exercises

*Assessment*

Examination and exercises: 70/30

*Languages of Instruction*

Finnish

**Machinery simulation, 4 op  
KC23CK70041 (study unit)**

*Lecturers*

Mika Kumara

*Objectives*

Upon completion of the course, students will be familiar with the principles of creating analytical models of structures and use of FEM software in the static and dynamic simulation of machines.

*Content*

- Pre–processors, solvers, post–processors
- Data transfer from CAD software
- Finite–element library
- Material models
- Static and dynamic analyses
- Linear and nonlinear problems

*Literature / Study Material*

Lecture material

*Learning Methods*

Lectures and exercises, independent study

*Assessment*

Written examination, exercises

*Prerequisites*

- Finite–element Methods
- Mechanics of Vibrations

*Languages of Instruction*

Finnish

*Further Information*

Mika Kumara

**Human resources management, 4 op  
KC04BA85050 (study unit)**

*Lecturers*

Lasse Tarhala

*Objectives*

Students will be familiar with the basic principles pertaining to the management of people and matters. Upon completion of the course, students will have knowledge of various organisational models, various styles of management and know how to use various methods of creativity.

*Content*

- Organisations
- Leadership skills and functions
- Models of leadership
- Basics of occupational psychology and personnel management
- Evaluation of students' leadership profile
- Creativity

*Literature / Study Material*

To be announced.

*Learning Methods*

Lectures, assignments and seminars

*Assessment*

Participation in class assignments, exam

*Languages of Instruction*

Finnish

*Further Information*

Lasse Tarhala

**Material engineering module, 15 op  
KC23KO100 (study entity)**

The purpose of the Materials Design Module is to deepen students' knowledge of the selection and use of materials with special consideration to factors concerning manufacturing technology.

**PROJECT STUDIES, 27 op  
KC23EK20 (study entity)**

Objectives: Students will understand the demands associated with the duties of an engineer and be able to apply the knowledge and skills they have learned previously to independent problem–solving situations and to obtain new knowledge. The aim of the Project Studies is to prepare students for a career as an engineer and to allow them to acquire specialised expertise in some area of the profession while they work. At the same time, Project Studies guide students in

developing creative problem-solving skills, obtaining information and applying it in practice, and in practicing their communicative and social skills. Students may complete their Project Studies independently or as part of a small group in projects offered by companies or organisations. Contents:

- Practical training in Projektipaja and company projects
- Presentation of the project and its results in a seminar
- Approved work performance, project reports, and seminar
- Chosen assignment from at least three of the following: Production Technology, Mechanical Engineering, Business Operations, Technical Mechanics, Materials Design, Automation Systems and Leadership
- English 3 is included in the Project Studies, making a total of 30 credits for Project Studies

Literature/Study material: To be announced Learning methods: Independent study Assessment: Reports, completion of a project, seminars and assessment by the company/organisation Previous studies: Professional Studies

## **Plastics technology, 3 op KC23CK50021 (study unit)**

### *Lecturers*

Jukka Pajula, MSc (Eng.)

### *Objectives*

Upon completion of the course, students will understand the basic concepts of polymer chemistry and be familiar with the more common engineering plastics, their technical characteristics and areas of application.

### *Content*

- Structure of plastics
- Physical and mechanical characteristics of plastics
- Manufacturing, machining and bonding plastics
- Areas of application

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and exercises, seminar work, and independent study

### *Assessment*

Written examination/seminar work: 70/30

### *Languages of Instruction*

Finnish

### *Further Information*

Jukka Pajula

## **Project Work Shop, 12 op KC23EK20100 (study unit)**

### *Lecturers*

Teachers in the technology department

### *Objectives*

Students will work on multi-technical, international student teams to fulfil product and production development commissions for various companies utilising Seinäjoki UAS's laboratories. Students will develop their technical expertise and skills in project work and enhance their relationships with companies and other actors.

### *Content*

Students carry out tasks given by their employer. They are given specific learning goals for doing the tasks. The companies' commissions are clearly defined development tasks that support learning. The tasks may vary from short-term surveys to more extensive tasks. A commission may involve a survey pertaining to quality, the manufacturing of prototypes, testing and comparing work methods, and conventional practical and design work. A commission may also involve a company's completed development project, the functioning, need for refining or cost efficiency of which needs to be examined. The commissions of companies contain business secrets and therefore they are always confidential.

### *Learning Methods*

Student teams carry out commissions by various companies under the supervision of the employer and teacher of the degree programme. The workshop also involves project management.

### *Further Information*

Teachers in the technology department

## **Material technique 2, 4 op KC23CK50011 (study unit)**

### *Lecturers*

Jukka Pajula MSc (Eng.)

### *Objectives*

Upon completion of the course, students will be familiar with the destructive and non-destructive inspection and examination procedures for metals.

### *Content*

- Methods of ultrasound, penetrant solutions, magnetic particles, X-rays and eddy-currents
- Tests for durability, hardness, tension, bending and form
- Measurement of residual tensions

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and exercises, independent study

### *Assessment*

Written examination/assignments: 70/30

### *Languages of Instruction*

Finnish

### *Further Information*

Jukka Pajula

## **Project Course, 15 op KC23EK20101 (study unit)**

### *Lecturers*

Teachers in the degree programme

### *Objectives*

The purpose of the practical training period in Project Studies is to provide students with new, more extensive expertise in their chosen field according to their personal goals. The studies are systematic, and students agree on the details concerning the goals, contents, implementation and assessment of the studies/project with their supervisor and employer.

### *Content*

The studies involve the common duties associated with the field of engineering. The studies include the tasks given by the employer and other associated assignments that support and enhance learning. A representative from the company in which students work and a teacher from the degree programme function as supervisors.

### *Learning Methods*

- Working in a company
- Problem-solving task to do independently
- Reporting on assignments

### *Assessment*

Students will receive a numerical grade for their Project Studies. Assessment comprises a stated from the employer, students' self-assessment, and assessment by the supervising teacher who gives the final grade. Each assignment, including the grades given, will be entered into the student register of transcripts.

### *Prerequisites*

Sufficient amount of Professional Studies

### *Further Information*

Teachers in the degree programme



## **Material selection, 4 op KC23CK80031 (study unit)**

### *Lecturers*

Jukka Pajula

### *Objectives*

Students will acquire the basic principles involved in the selection of materials.

### *Content*

- General principles
- Selection process
- Types of tension
- Selection maps
- Economical aspects of the selection of materials

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and assignments, independent study

### *Assessment*

Written examination/assignments: 70/30

### *Prerequisites*

- Welding Technology
- Materials Selection

### *Languages of Instruction*

Finnish

### *Further Information*

Jukka Pajula

## **FREE CHOICE STUDIES, 15 op KC23DK10000 (study entity)**

The purpose of the elective courses is to deepen the knowledge students acquire in their Professional Studies. Courses completed in other institutions of higher education may also be used as elective courses upon approval. We recommend that students choose electives among the selection offered by their degree programme. This way they support students' other studies the best and completing them along with other studies is, practically speaking, easier.

## **Material engineering laboratory work, 4 op KC23CK80041 (study unit)**

### *Lecturers*

Jukka Pajula

### *Objectives*

Students will be competent in designing and manufacturing a product while considering the demands of the product and manufacturing.

### *Content*

Design and manufacture of a product

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures and assignments, independent study

### *Assessment*

Written examination/assignments: 70/30

*Prerequisites*  
Materials Design Module

*Languages of Instruction*  
Finnish

## **CAD –tool for engineer, 2 op KC23DK20010 (study unit)**

*Lecturers*  
Jukka Aarnio, DSc (Tech.)

*Objectives*  
Students will learn to independently design machine components and assemblies using standard preforms and component libraries. Emphasis in the course is placed on producing designing documents that are compiled correctly and abide by standards.

### *Content*

- Main principles and features of AutoCAD
- Bottom–up and top–down designing, editing drawing formats and settings in the Autodesk Inventor designing environment
- Designing exercises using the 2D and 3D environments

### *Literature / Study Material*

- Autio and Hasari: Koneenpiirustus
- AutoCAD and Inventor instruction material
- Other material distributed during the course

### *Learning Methods*

- Lectures
- Supervised exercises
- Independent assignments

*Assessment*  
Assignments and an exam

*Languages of Instruction*  
Finnish

*Further Information*  
Jukka Aarnio

## **Automation systems module, 15 op KC23KO10010 (study entity)**

The purpose of the Automation Systems Module is to deepen students' knowledge of the opportunities automation provides in modern production systems.

## **CAD –continuation studies, 3 op KC23DK20011 (study unit)**

*Lecturers*  
Jukka Aarnio, DSc (tech.)

*Objectives*  
Students will be familiar with the Autodesk Inventor designing environment and know how to work with drawing sheets and parts lists and add designing specifics to them. They will be competent in utilising modelling programmes to design simple sheet metal and welded structures. Students will also know how to add parametric components to assemblies from a standard library.

### *Content*

- Inventor template files and how to create them
- Creating drawing sheets and adding designing specifics to them
- Modelling a piece of sheet metal, designing a component to be welded

- Axle-driven generators
- Adding bearings and other parametric components to assemblies
- Parts catalogs and using them
- Creating a product family

#### *Literature / Study Material*

- Autio and Hasari: Koneenpiirustus
- Inventor instruction material
- Other material distributed during the course

#### *Learning Methods*

- Lectures
- Supervised exercises
- Independent assignments

#### *Assessment*

Assignments and an exam

#### *Prerequisites*

Technical Drawing and CAD

#### *Languages of Instruction*

Finnish

#### *Further Information*

Jukka Aarnio

### **Control systems, 4 op KC23CK90011 (study unit)**

#### *Objectives*

Upon completion of the course, students will be able to design a control system for automation systems using programmable controllers, microcomputers and other control devices.

#### *Content*

- Hardwired and programmable control systems
- Structure of a programmable controller, usage and programming
- Diagram of connections
- Input and output lists
- Use of a microcomputer in controlling an actuator and a system
- PC control rooms and user interfaces
- Basic concepts of electronic data transfer

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, assignments, and independent study

#### *Assessment*

Written examination/assignments: 70/30

#### *Languages of Instruction*

Finnish

### **PRACTICAL TRAINING, 30 op KC23EK20010 (study entity)**

- Objectives: Students will work in their own profession under the supervision of an expert. They will have the opportunity to deepen their knowledge of the profession they have chosen.
- Contents: Students will familiarise themselves with their profession and apply the knowledge they have learned in the classroom in practice. Practical training takes place in two periods in the spring semester.
- Literature/Study material: To be announced at the beginning of the practical training.
- Learning methods: Independent study
- Assessment: References and reports

## Sensor technology, 3 op KC23CK90021 (study unit)

### *Objectives*

Students will understand how basic sensors are used in automation systems. They will also be familiar with how sensors work, their electrical, mechanical and performance properties. They will be competent in selecting the right sensor to solve a problem in detection or measurement. Students will be familiar with the electrical connections of sensors and know how to connect them to control devices. Furthermore, students will learn how to connect a sensor to a fieldbus.

### *Content*

- Basics in sensor and measurement
- Shield categories
- Bistable sensors
- Sensors that detect presence
- Sensors that measure magnitude
- Detection systems
- Measuring movement
- Basics of computer vision
- Connecting sensors and measurement exercises in the laboratory

### *Literature / Study Material*

- Lecturer's material
- Demonstrations during lectures
- Assignments
- Product and programming manuals from importers

### *Learning Methods*

Lectures and assignments, independent study

### *Assessment*

Written examination/assignments: 70/30

### *Languages of Instruction*

Finnish

## FINAL THESIS, 15 op KC23FK30001 (study entity)

- Objectives: The aim of the final thesis is to prepare students for their future career. Students will learn to apply the theory they have learned during their studies into practice and to seek information they are lacking to solve problems.
- Contents: Field-related
- Literature/Study material: All possible, relevant material
- Learning methods: Independent study
- Assessment: The institution has provided separate guidelines for writing the thesis. Written report, presentation of the results in a thesis seminar, and a Maturity Test.

## Robotics, 4 op KC23CK90031 (study unit)

### *Objectives*

Students will be familiar with various types of robots. They will be capable of inspecting robots and know how to use robots in factory automation and other areas where robotics are used. Students will be familiar with the structure, properties, co-ordinations of robots, as well as the additional devices used in robots. They will be competent in handling and programming industrial robots using online and offline methods of programming. They will also be competent in designing and selecting devices for the automatic handling of products.

### *Content*

- Types of robots
- Mechanical structure of industrial robots
- Control systems, properties, co-ordinations, and additional devices
- Handling an ABB industrial robot, online and offline programming
- Handling a Motoma robot, online programming
- Handling robots and programming exercises in the laboratory

### *Literature / Study Material*

- Lecturer's material
- Demonstrations during lectures
- Assignments
- Product and programming manuals from importers
- Kuivanen R. Robotiikka. Suomen Robottiyhdistys Ry

### *Learning Methods*

Lectures and assignments, independent study

### *Assessment*

Written examination/assignments: 70/30

### *Prerequisites*

Sensor Technology

### *Languages of Instruction*

Finnish

## **Automation systems design, 4 op KC23CK90041 (study unit)**

### *Objectives*

Upon completion of the course, students will have command of the basic principles associated with designing and selecting automation systems for production machinery and equipment.

### *Content*

- Architecture of automation systems,
- Fieldbuses
- Control rooms
- Integration of automation system components and subsystems to a complete system
- Purchasing an automation system

### *Learning Methods*

Lectures and assignments, independent study

### *Assessment*

Written examination/assignments: 70/30

### *Prerequisites*

- Production Technology Module
- Control Systems
- Sensor Technology
- Robotics

### *Languages of Instruction*

Finnish

# Degree Programme in Nursing

## QUALIFICATION AWARDED

Bachelor of Health Care, Registered Nurse

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Teaching in the Degree Programme in Nursing applies the constructivist theory of learning. Online studies and other independent assignments promote students' self-directed, evidence-based learning.

## PROFILE OF THE PROGRAMME

The purpose of the Degree Programme in Nursing is to train experts of nursing whose work is based on multi-disciplinary knowledge, extensive nursing competence and high ethical standards. Registered nurses (UAS) are qualified to examine, evaluate and develop their competence, work, work community and professional field. They plan, implement and develop nursing in national and international contexts.

Registered nurses (UAS) are licensed to practise professional nursing as nurses in the social and health care sectors. The training abides by the directives of the European Council pertaining to the education of nurses responsible for general care.

## KEY LEARNING OUTCOMES

### *Competence in client-oriented health care*

A Bachelor of Health Care (Nurse)

- \* has a holistic understanding of the individual and ability to recognise the complexity of the human being using the knowledge base of neighbouring disciplines and fields.
- \* is able to recognise various functional deficiencies and disorders and their degrees of severity.

### *Competence in health promotion*

A Bachelor of Health Care (Nurse)

- \* understands of the treatment chains and service networks in health care and the aetiology and medical treatment processes of the more common diseases (general practice, surgery, paediatrics, obstetrics and maternity care, mental health care, psychiatry, geriatric care and geriatrics) to define nursing needs.
- \* is able to recognise and anticipate the medical problems and threats to an individual or family/group.
- \* is able to support and empower individuals, families and groups and to assume responsibility for the maintenance and promotion of their health, resources and functional capacity.
- \* is able to apply the principles of rehabilitative health care.
- \* is able to act as an expert in health care enhancing sustainable development and environmental health.

### *Clinical competence*

A Bachelor of Health Care (Nurse)

- \* is able to assume responsibility for patients'/clients' physical, psychological, spiritual and social needs and safety.
- \* is able to monitor a patient's condition, symptoms and the effectiveness of medical care in the treatment of the more common diseases, and to make necessary conclusions.
- \* is able to examine, evaluate, monitor and secure the vital functions of patients.
- \* is able to prevent infections.
- \* is able to carry out the more essential examination and treatment methods, and to correctly and safely use the necessary equipment.
- \* is able to utilise research results in treatment and follow-up.
- \* is able to support the well-being and coping of patients and their families.
- \* is able to recognise and prevent situations threatening a patient's/client's mental health and to assist him/her whenever necessary.
- \* is able to alleviate patients'/clients' pain and suffering in different life situations, also in end-of-life care.
- \* is able to provide first-aid in various care and operative environments, as well as give manual, machine and intensive resuscitation within the limits of their authority.
- \* is able to act in crises and emergency situations according to valid instructions.
- \* is able to use various instruments and aids in a safe and ergonomic way.
- \* is able to estimate a patient's total care needs.
- \* is able to implement safe medical treatment (pharmacotherapy) as prescribed by a medical doctor and monitor the effects and effectiveness of the given treatment.
- \* is able to calculate dosages of medications and understanding of clinical pharmacology essential for nursing patients of

all ages.

- \* is able to manage the preparative procedures for intravenous (IV) therapy, endovascular treatment and blood transfusions, ability to prepare patients for these procedures and treatments and to monitor patients during and after IV therapy and blood transfusions.
- \* is able to cannulate the peripheral vein and implement IV therapy.
- \* is able to implement intravenous and medical treatment in the central vein.
- \* is able to recognise the risks of pharmacotherapy and to utilise information on unexpected side-effects of medical treatment to develop processes of pharmacotherapy.

#### *Decision-making competence*

A Bachelor of Health Care (Nurse)

- \* is able to establish and maintain client- and goal-oriented interaction and relationships with patients, families and communities.
- \* is able to assume responsibility for defining nursing needs and plans and to implement and evaluate patient care together with the patient and his/her immediate family.
- \* is able to enter nursing information onto patient documents and into data registers in accordance with data and privacy protection policies.

#### *Competence in counselling and guidance*

A Bachelor of Health Care (Nurse)

- \* is able to guide and counsel patients/clients, their immediate family and groups.
- \* is able to support and guide patients/clients in self-treatment and management of personal health problems and concerns.
- \* is able to teach and advise students and staff.
- \* is able to use and produce suitable counselling material and to use electronic means of patient counselling.
- \* is able to guide patients/clients in matters relating to medical treatment to promote their commitment to their health promotion and treatment.

## **OCCUPATIONAL PROFILES**

Registered nurses (UAS) work as independent experts of nursing in primary health care, specialised medical services, and social services and in the private and third sectors. They support, care for and counsel both healthy and ailing individuals of all ages, families, groups, and communities. Their work involves nursing in the areas of health promotion and maintenance, prevention and treatment of illness, rehabilitation and medical treatment prescribed for patients.

## **ACCESS TO FURTHER STUDIES**

Upon completion of the programme, students are eligible to begin master's level studies. In Finland, this also requires three years' work experience. The receiving higher education institution determines acceptance into the programme.

Registered Nurse (UAS master's degree)

Public Health Nurse (UAS master's degree)

(University of applied sciences act 351/2003, in Finnish)

## **COURSE STRUCTURE**

The courses in the degree programme are available at

- \* NURSING 2009FIN, Nursing Branch, Registered Nurse (RN), FINNISH STUDENTS (1.9.2009)
- \* NURSING 2009FOR, Nursing Branch, Registered Nurse (RN), FOREIGN STUDENTS (1.9.2009)
- \* Table of competences: Nursing Branch, Registered Nurse (RN), FINNISH STUDENTS (\*.xls)
- \* Table of competences: Nursing Branch, Registered Nurse (RN), FOREIGN STUDENTS (\*.xls)

## **EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

## **CONTACT PERSONS**

Head of degree programme: Ms Raija Palo, tel. + 358 20 124 5181, GSM: +358 40 830 3956, e-mail: raija.palo@seamk.fi

ECTS departmental coordinator / International coordinator: Ms Helinä Mesiäislehto-Soukka, tel. + 358 20 124 5194, GSM: +358 40 830 4200, e-mail: helina.mesiäislehto-soukka@seamk.fi

Student counsellor and tutor teacher: Ms Raili Kurki, tel. + 358 20 124 5182, raili.kurki@seamk.fi

## Degree Programme in Nursing (1.9.2009) NURSING 2009FIN (Nursing Branch, Registered Nurse (RN), FINNISH STUDENTS)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KG29PO	<b>BASICS STUDIES</b>					<b>63</b>
KG29PO01	<b>HEALTH, SOCIETY AND INDIVIDUAL</b>					<b>27</b>
KG29PO01001	Introduction to Degree Programme in Nursing	x				4.5
KG29PO01002	Health and Welfare	x				7.5
KG29PO01003	Customership in Health Care and Social Work	x				6
KG29PO01004	Finnish language	x				3
KG29PO01005	English language	x				3
KG29PO01006	Swedish language	x				3
KG29PO02	<b>BASIC SKILLS AND KNOWLEDGE IN NURSING</b>					<b>36</b>
KG29PO02001	Theoretical Basics of Nursing	x				6
KG29PO02002	Basics of Nursing Skills	x				12
KG29PO02003	Drug Care	x				6
KG29PO02004	Practical Training in Nursing Skills	x				12
KG29AO	<b>PROFESSIONAL STUDIES</b>					<b>126</b>
KG29AO01	<b>NURSING IN DIFFERENT ENVIRONMENTS 1</b>					<b>45</b>
KG29AO01001	Adult and Family as a Client in Nursing		x			15
KG29AO01002	Practical Training in Adult Nursing		x			30
KG29AO02	<b>NURSING IN DIFFERENT ENVIRONMENTS 2</b>					<b>18</b>
KG29AO02001	Child, Young and Family as a Client in Nursing		x			6
KG29AO02002	Practical Training in Family–Centred Nursing		x			12
KG29AO03	<b>NURSING IN DIFFERENT ENVIRONMENTS 3</b>					<b>18</b>
KG29AO03001	Elder and Family as a Client in Nursing		x			6
KG29AO03002	Practical Training in Elderly Care		x			12
KG29AO04	<b>NURSING IN DIFFERENT ENVIRONMENTS 4</b>					<b>27</b>
KG29AO04001	Multicultural Nursing			x		9
KG29AO04002	Practical training in Multicultural settings			x		18
KG29AO05	<b>RESEARCH AND DEVELOPMENT IN NURSING</b>					<b>18</b>
KG29AO05001	Competences in Working life, Quality Assurance and Entrepreneurship in Nursing			x		8
KG29AO05002	Quality Assurance and Entrepreneurship in Nursing			x		8
KG29AO05003	Research and Developing in Nursing			x		7
KG29AO05004	Practical training in Projects	x				3
KG29OT	<b>BACHELOR'S THESIS AND MATURITY TEST</b>					<b>15</b>
KG29VVO	<b>FREE CHOICE STUDIES</b>					<b>6</b>

## Degree Programme in Nursing (1.9.2009) NURSING 2009FOR (Nursing Branch, Registered Nurse (RN), FOREIGN STUDENTS)



Code	Name	Study Year				CR
		1.	2.	3.	4.	
KG29PO	<b>BASICS STUDIES</b>					<b>69</b>
KG29PO01	<b>HEALTH, SOCIETY AND INDIVIDUAL</b>					<b>33</b>
KG29PO01001	Introduction to Degree Programme in Nursing	x				4.5
KG29PO01002	Health and Welfare	x				7.5
KG29PO01003	Customership in Health Care and Social Work	x				6
KG29PO01007	Finnish language	x				12
KG29PO01005	English language	x				3
KG29PO02	<b>BASIC SKILLS AND KNOWLEDGE IN NURSING</b>					<b>36</b>
KG29PO02001	Theoretical Basics of Nursing	x				6
KG29PO02002	Basics of Nursing Skills	x				12
KG29PO02003	Drug Care	x				6
KG29PO02004	Practical Training in Nursing Skills	x				12
KG29AO	<b>PROFESSIONAL STUDIES</b>					<b>126</b>
KG29AO01	<b>NURSING IN DIFFERENT ENVIRONMENTS 1</b>					<b>45</b>
KG29AO01001	Adult and Family as a Client in Nursing		x			15
KG29AO01002	Practical Training in Adult Nursing		x			30
KG29AO02	<b>NURSING IN DIFFERENT ENVIRONMENTS 2</b>					<b>18</b>
KG29AO02001	Child, Young and Family as a Client in Nursing		x			6
KG29AO02002	Practical Training in Family–Centred Nursing		x			12
KG29AO03	<b>NURSING IN DIFFERENT ENVIRONMENTS 3</b>					<b>18</b>
KG29AO03001	Elder and Family as a Client in Nursing		x			6
KG29AO03002	Practical Training in Elderly Care		x			12
KG29AO04	<b>NURSING IN DIFFERENT ENVIRONMENTS 4</b>					<b>27</b>
KG29AO04001	Multicultural Nursing			x		9
KG29AO04002	Practical training in Multicultural settings			x		18
KG29AO05	<b>RESEARCH AND DEVELOPMENT IN NURSING</b>					<b>18</b>
KG29AO05001	Competences in Working life, Quality Assurance and Entrepreneurship in Nursing			x		8
KG29AO05002	Quality Assurance and Entrepreneurship in Nursing			x		8
KG29AO05003	Research and Developing in Nursing			x		7
KG29AO05004	Practical training in Projects	x				3
KG29OT	<b>BACHELOR'S THESIS AND MATURITY TEST</b>					<b>15</b>
KG29VVO	<b>FREE CHOICE STUDIES</b>					

## Study Descriptions

### Introduction to Degree Programme in Nursing, 4.5 cr KG29PO01001 (study unit)

#### Lecturers

- Asta Heikkilä PhD
- Raili Kurki MNSc
- Anna Saari, MNSc
- Helinä Mesiäislehto–Soukka, PhD
- Silja Saarikoski, MSc

- Petri Keskinen, BBA
- Arja Honkaniemi, BBA
- Raija Palo, MNsc

### *Objectives*

Self–development Competence Students will be familiar with the professional competencies of a nurse. They will improve their learning skills and be able to research information independently from a variety of sources. Students will value themselves as learners and recognise their strengths and weaknesses as learners. They will understand general differences in cultures and be able to identify culture shock. Communication and Social Competence Students will have a positive attitude toward their training and future profession as both a student of nursing and as a nurse. They will be aware of their strengths in interpersonal communication and get along well with various individuals and groups. Students will accept that individuals and groups are different and be able to adapt to these differences in professional interaction.

### *Content*

#### LEARNING AND STUDY SKILLS

- Orientation to Finland and SeAMK = Seinajoki UAS
- Being a student in the university of applied sciences, the Degree Programme in Nursing, and as a member of a group
- Information and working with information
- Information retrieval
- Educational science as a science
- Theories of learning and teaching
- Life–long learning
- Self–guidance
- Culture and culture shock
- Portfolio

#### SELF–KNOWLEDGE, INTERACTION AND TEAMWORK SKILLS

- Socialisation of the individual
- Self–esteem and self–confidence
- World of values
- Self–knowledge
- Communication skills
- Team – group
- Group membership
- Group dynamics/group process
- Group feedback
- Group learning

### *Literature / Study Material*

- Seinäjoki University of Applied Sciences Study Guide 2009
- Curriculum for the Degree Programme in Nursing 2009
- Seinäjoki University of Applied Sciences. 2008. Instructions for Writing a Text
- Other material assigned by the lecturer

### *Learning Methods*

- Written assignments
- Lectures
- Group work
- Seminar
- Co–operative learning
- Independent study

### *Assessment*

- Pass/fail
- Portfolio

### *Prerequisites*

First study module in the programme

### *Languages of Instruction*

English

### *Further Information*

Core competencies: Self–development Competence, Communication and Social Competence

## **Health and Welfare, 7.5 cr KG29PO01002 (study unit)**

### *Lecturers*

- Helinä Mesiäislehto–Soukka PhD
- Marja Toukola MNSc
- Fidaïm Gashi MSc

### *Objectives*

Health Promotion Competence Students will be able to identify factors affecting the health of people of different ages in different environments and to use different models of health promotion when choosing methods of health promotion. They will be competent in identifying health problems and threats to the health of the individual, family, community and population. They will be able to strengthen the customer's (individual, family, group, population) resources and participation in health promotion. Students will also be able to support and activate customers' in taking responsibility for the maintenance and promotion of their health and resources. They will be familiar with the normal functions of the healthy human organism. Communication Competence Students will be competent in strengthening customers' resources and their participation in health promotion. International Competence Students will be competent in utilising both national and international health–care programmes to promote the customers' health. They will be able to identify the challenges posed by multiculturalism in health care and know the principles of customer–based guidance. Students will be competent in using international sources of field–related information.

### *Content*

- Health, health promotion, health promotion of individuals in different phases of life, national and global challenges of health promotion
- The environment, its effects on health and prevention of common diseases
- Professional interaction and co–operation
- Dialogue in co–operation, health communication, welfare technology
- Concept of guidance
- Customer–based guidance
- Legislation and recommendations governing professional conduct
- National and international health care programmes
- Anatomy and physiology

### *Literature / Study Material*

- Saarinen K. & Saarinen J. 2008. Way to Health. English for Health Care. Otava. Helsinki
- Marieb E. N. 2009. Essentials of Human Anatomy and Physiology. 9th ed. San Francisco
- Kpzier & Erbs. 2008. Fundamentals of Nursing. Concepts, Process and Practice. 8th ed. Pearson.
- Current articles

### *Learning Methods*

- Lectures
- Co–operative learning
- Online studies and independent study
- Portfolio

### *Assessment*

- Active participation
- Assignments
- Exams
- Portfolio

### *Languages of Instruction*

English

### *Further Information*

Core competencies: Health Promotion Competence and Communication Competence

## **Customership in Health Care and Social Work, 6 cr KG29PO01003 (study unit)**

### *Lecturers*

Helinä Mesiäislehto–Soukka, PhD

### *Objectives*

Organisational and Social Competence Students will know the basic outline and operational model of the Finnish public service system and identify the multiphase model of access to treatment. They will be familiar with the public, private and NGO work environment, as well as the social welfare system. Students will recognise the impacts of international strategies on health care and social welfare services. Serving Patients and Ethical Competence Students will be familiar with patients' rights and responsibilities as well as with data protection from the viewpoint of the individual and the organisation. They will be competent in applying this information to the patient service situation. Students will learn to evaluate patients' health and resources when planning services and obtain information in a patient-oriented way and abiding by the ethics of nursing. Entrepreneurship Competence Students will recognise customer potential in the operating environment and anticipate new possibilities for business.

### *Content*

- Health care and social work in Finland and its laws, domestic and international statutes concerning health care and social work in the EU
- Customership as a concept and the role of patient information in the patient-based approach
- Customer groups, customer satisfaction
- Business in the NOG sector, business environment analysis
- Company forms and the norms governing business activities

### *Literature / Study Material*

- Articles from scientific publications
- Health 2015 Programme

### *Learning Methods*

- Lectures
- Online study
- Independent study
- Portfolio

### *Assessment*

- Self-assessment
- Peer assessment
- Assignments
- Exams
- Portfolio

### *Languages of Instruction*

English

### *Further Information*

- Online learning: 2 cr

The core components of the course include both organisational and social competence, customership, and ethical and entrepreneurial competences.

## **Finnish language, 12 cr KG29PO01007 (study unit)**

### *Lecturers*

TBA

### *Objectives*

Finnish 1 Students will become acquainted with the basics of the Finnish language and learn to use both the spoken and the written language. Furthermore, students will learn about Finland and the habits of Finns habits, as well as Finnish ways of showing politeness. The target level of the course is A1 of the Common European Framework of Reference for Languages. Upon completion of the course, students will have knowledge of the basics of Finnish pronunciation, and they will know how to greet people and react to greetings. Students will be competent in telling about themselves,

managing in shops and ordering in cafés. They will also learn basic vocabulary needed in the nursing profession. Finnish 2 Students will expand their knowledge of vocabulary and grammar, and improve their pronunciation and written language skills. Furthermore, they will become further acquainted with the Finnish culture and habits. Students will also learn about essential field-related duties in Finnish. The course is integrated in the Basic Skills and Knowledge in Nursing course. The target level of the course is A2 of the Common European Framework of Reference for Languages. Upon completion of the course, students will be competent in telling about themselves, their families, hobbies and life in general. They will also be able to tell about their work using simple phrases and giving directions. Students will understand common, predictable phrases, messages and simple texts and be able to find predictable information in them. Finnish 3 Students will expand their knowledge of vocabulary and grammar, and improve their pronunciation and written language skills. They will also expand their knowledge of field-related vocabulary, nursing science and medical care. The target level of the course is A2+ of the Common European Framework of Reference for Languages. Upon completion of the course, students will be competent in telling about their work and profession and coping with simple everyday tasks. They will be competent in expressing their feelings and opinions, making telephone calls, and in understanding general field-related texts. Finnish 4 During the course, students will expand their knowledge of vocabulary and grammar and strengthen their spoken and written communication skills. The target level of the course is A2 – B1 of the Common European Framework of Reference for Languages. Upon completion of the course, students will understand clear, slow, standard language speech related to familiar topics dealing with work. They will understand general texts and field-related texts. They will also be competent in participating in spontaneous conversation about familiar topics, which are interesting to them and which pertain to everyday life, e.g. family, work and current issues. Students will also be able to argue for and express their opinions and tell about their plans patient cases and reactions. Students will be competent in writing coherent texts and making documents associated with patients and nursing. Portfolio: to improve students' knowledge of nursing processes and practise writing a nursing care plan.

### *Content*

#### Finnish 1

- Oral skills: alphabet, numbers, weekdays, months, time, countries, languages, nationalities, greetings, telling about and introducing oneself, vocabulary pertaining to food, shopping, asking and answering questions
- Grammar: principles of verb conjugation, questions, negative forms, present tense, personal pronouns, possessive pronouns, possessive case, partitive case
- Finnish culture and way of life

#### Finnish 2

- Oral skills: expressions of amount, food and drink vocabulary, ordering food and drinks in cafés and restaurants, telling about one's hobbies, living, asking for and giving directions (e.g. in a hospital)
- Grammar: adjectives, partitive case, verb types and verb conjugation, local cases, consonant gradation of nouns
- Finland and Finnish culture
- Portfolio: vocabulary pertaining to nursing, interaction in the nursing branch
- Portfolio: writing a nursing care plan
- Portfolio: vocabulary pertaining to anatomy and physiology

#### Finnish 3

- Oral skills: Telling about work and everyday life, telephoning, basic expressions of nursing science
- Grammar: improving the use of verbs, consonant gradation of verbs, imperative, imperfect tense
- Portfolio: basic vocabulary related to health promotion, prevention of sickness and rehabilitation
- Portfolio: basic vocabulary for medical care

#### Finnish 4

- Oral skills: running errands, admission interview, expressing wishes and dreams
- Grammar: conditional, perfect tense, vocabulary for specialized nursing and medicine

### *Literature / Study Material*

#### Finnish 1

- <http://www.uuno.tamk.fi/>
- White L. 2001. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.
- Portraying Finland. 2008. Helsinki: Otava.
- Nieminen P. & Hyrkäs K. 2004. Terveystieteiden sanasto. Helsinki: WSOY.
- Online material and other material as indicated by the lecturer.

#### Finnish 2

- White L. 2001. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.
- Portraying Finland. 2008. Helsinki: Otava.
- Nieminen P. & Hyrkäs K. 2004. Terveystieteiden sanasto. Helsinki: WSOY. \_ Kassara H., Paloposki S., Holmia S., Murtonen I., Lipponen V., Ketola M.-L. & Hietanen H. 2004. Hoitotyön osaaminen. Helsinki:

WSOY.

- Online material

### Finnish 3

- White L. 2001. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura
- Nieminen P. & Hyrkäs K. 2004. Terveysthuollon sanasto. Helsinki: WSOY.
- Eriksson K., Isola A., Kyngäs H., Leino-Kilpi H., Lindsröm U., Paavilainen E., Pietilä A.-M., Salanterä S., Vehviläinen-Julkunen K. & Åstedt-Kurki P. 2007. Hoitotiede. Helsinki: WSOY.
- Online material and other material as indicated by the lecturer.

### Finnish 4

- White L. 2001. From Start to Finnish: A Short Course in Finnish. Helsinki: Finn Lectura.
- Nieminen P. & Hyrkäs K. 2004. Terveysthuollon sanasto. Helsinki: WSOY.
- Holmia S., Murtonen I., Myllymäki H. & Valtonen K. 2004. Sisätautien, kirurgisten sairauksien ja syöpätautien hoitotyö. Helsinki: WSOY.
- Online material and other material as indicated by the lecturer.

### *Learning Methods*

Spoken and written exercises, listening exercises, portfolio, online assignments.

### *Assessment*

- Active participation in lessons
- Completion of homework
- Demonstration of oral skills
- Portfolio
- Exam

### *Prerequisites*

Students are required to complete the courses in the order 1–4. Students must pass previous courses, or possess equivalent knowledge, before proceeding to the next course.

### *Languages of Instruction*

English and Finnish

## **Finnish language, 3 cr KG29PO01004 (study unit)**

### *Lecturers*

Katariina Punkari, MSc

### *Objectives*

Intended for Finnish students Communication Competence Students will understand how the correct usage of language builds a foundation for written communication. They will learn to analyse and interpret various types of information. They will participate in spoken and written exercises to practise argumentation and to develop their thinking skills. Students will learn to compile common documents and be introduced to writing for scientific purposes. Students will also practice spoken communication situations, e.g. meetings and negotiations.

### *Content*

- Communication for scientific purposes and documentation
- Academic essay, summary, report, poster, journal
- Media literacy
- Introduction to writing documents
- Preparation for, practice in and evaluation of spoken communication
- Interaction, verbal and non-verbal expressions, use of visual aids
- Meetings and negotiation skills
- Presentations

### *Literature / Study Material*

Current literature

### *Learning Methods*

- Lecture
- Written and spoken exercises

- Independent study
- Portfolio

#### *Assessment*

- Active participation
- Examination
- Portfolio

#### *Languages of Instruction*

Finnish

#### *Further Information*

Core competence: communication competence

### **English language, 3 cr KG29PO01005 (study unit)**

#### *Lecturers*

Mari Heinonen, MA (English Philology)

#### *Objectives*

Communication Competence Students will reinforce their skills in English to use while studying nursing. They will be familiar with using English for academic purposes in nursing, and they will learn the features of Academic English and learn how to be efficient readers of academic texts. Students will practise writing summaries and reports about their research. They will also practise giving oral presentations. Students will also learn how to recognise and use different vocabulary and structures of Academic English.

#### *Content*

- Features of Academic English: formal and informal language
- Prefixes and suffixes, vocabulary building
- Passive voice, conjunctions, hedging expressions
- Structures of academic articles
- Writing summaries
- Oral presentations
- Problematic issues pertaining to the use of English

#### *Literature / Study Material*

Materials distributed by the lecturer.

#### *Learning Methods*

- Lectures
- Work in pairs and in groups
- Independent study
- Portfolio

#### *Assessment*

- Compulsory attendance: min. 80 % attendance
- Active participation
- Oral presentations
- Written summaries
- Exam
- Portfolio

#### *Languages of Instruction*

English

#### *Further Information*

The core competence learned in the course is communication competence.

### **Swedish language, 3 cr KG29PO01006 (study unit)**

#### *Lecturers*

Jaana Store, MSc

*Objectives*

For Finnish students Communication Competence Students will enhance Swedish skills: listening comprehension, written and spoken communication. They will learn the essential, field-related vocabulary in Swedish and understand texts in Swedish pertaining to nursing. Students will be competent in discussing field-related issues in nursing in Swedish.

*Content*

- Articles and summaries pertaining to nursing
- Spoken and written assignments and in groups and in pairs

*Literature / Study Material*

Tuunanen, Maria & Walinheimo, Kirsi. 2007. Flexvård. Helsinki. Otava.

*Learning Methods*

- Lessons
- Independent study
- Spoken and written assignments
- Portfolio

*Assessment*

- Active participation
- Written and oral exam
- Portfolio
- Grading based on a scale of 1 to 5

*Languages of Instruction*

Swedish

*Further Information*

Core competence: Communication Competence

## **Theoretical Basics of Nursing, 6 cr KG29PO02001 (study unit)**

*Lecturers*

- Annu Peltoniemi, PhD
- Mari Salminen–Tuomaala, MNSc

*Objectives*

Ethical Competence Students will become familiar with the philosophical aspects of nursing and understand ethical problems associated with nursing. They will also be familiar with the ethical decision-making involved in nursing and know the legislation governing nurses. Students will be aware of the status of nursing science among other sciences and understand the essential concepts of nursing philosophy. They will learn the principles of nursing and rehabilitation and be competent in handling nursing situations ethically. Students will develop critical and reflective thinking skills as regards nursing practices and form an overall understanding of nursing principles and activities. They will also learn about the historical development and features of nursing. Research and Development Competence Students will understand the significance of science in nursing and the development of nursing and understand the science of nursing as the foundation of nursing, as well as other sciences as supportive elements to nursing. They will develop their critical and reflective thinking skills concerning the practicality of nursing. They will form a general picture of the principles of nursing and nursing activities, and be familiar with the phases in the history of nursing and its characteristics.

*Content*

- Science and theory
- Philosophical thinking and the primary concepts of nursing science
- Science of nursing and a field of science
- Areas of research in nursing
- Concept of ethics
- Foundational values of nursing
- Understanding of the human being in nursing
- Professional discretion and obligation of notification in health care
- Ethical decisions-making in nursing
- Nursing as a concept and activity
- Principles of nursing



- Care and assistance relationship
- Nursing process
- Models of nursing
- Phases in development of treatment and nursing and the distinctive characteristics of nursing during different time periods
- Development of the theory of nursing and training from the 1800s to today

#### *Literature / Study Material*

- Fry S. T. & Johnstone M.–J. 2008. Ethics in Nursing Practice. A Guide to Ethical Decision Making. 3rd ed. Blackwell Publishing
- Alraro–LeFevre R. 2006. Applying Nursing Process: a tool for critical thinking. 7th ed. Lippincott Williams & Wilkins
- Lobiondo–Wood G. & Haber J. 2006. Nursing Research. Methods and Critical Appraisal for Evidence–based Practice. 6th ed. Mosby.
- Other material provided by the lecturer.

#### *Learning Methods*

- Lectures
- Online studies
- Independent study
- Portfolio

#### *Assessment*

- Independent study
- Group work
- Learning processes and assesment of learning outcomes
- Course assignments
- Portfolio

#### *Languages of Instruction*

English

#### *Further Information*

- Online learning: 2 cr
- Core competeces: ethical, research and development competencies

## **Basics of Nursing Skills, 12 cr KG29PO02002 (study unit)**

#### *Lecturers*

- Raili Kurki MNSc
- Raija Tolonen MNSc
- Marja Toukola MNSc
- Katriina Kuhalampi MNSc
- Pia Haapala MNSc
- Fidaim Gashi MSc

#### *Objectives*

Clinical Competence Students will be able to identify the need for immediate first–aid and know what to do in the most common first–aid situations. They will have a profound understanding of the significance of aseptic work. Students will learn to plan, carry out and evaluate a nursing plan for a terminally ill patient and know how to select and justify a nursing method on the basis of research information. Students will also be competent in working in a patient–oriented way. They will know how to prepare patients for and guide them through the more common laboratory and radiology examinations. Patient–oriented Competence Students will be competent in working in a patient–oriented way in a variety of situations and in evaluating and developing their skills in this area. They will be able to compile a nursing plan and follow recommendations in their notation. Students will know how to plan, execute and evaluate patient–oriented consultation and use consultation methods in individual, family and community nursing. Decision–making Competence Students will be able to plan, carry out and evaluate patient–oriented nursing and learn to use the best and latest information in decision–making. Students will be competent in systematically documenting, reporting and following patient information and in using modern computer programmes to do so. They will be able to give justified opinions as a nursing experts on a multiprofessional teams.

#### *Content*

- Nursing in the promotion of human health
- Rehabilitative approaches to work
- Working in dangerous and first-aid situations
- Preventing infections
- Principles of microbiology and pathology
- Treating and encountering the patient
- Planning, executing and evaluating of patient-oriented consultation
- Caring for a person who is dying or has passed and supporting family members
- Professional decision-making
- Integration of other sciences, e.g. medicine and natural sciences

#### *Literature / Study Material*

- Kozier & Erbs. 2008. Fundamentals of Nursing. Concepts, Process and Practice. 8th ed. Pearson.
- Alfaro-LeFevre R. 2006. Applying Nursing Process. A tool for critical thinking. 7th ed. Lippincott Williams & Wilkins.
- British Red Cross. 2008. First Aid Manual.

#### *Learning Methods*

- Lectures
- Laboratory work
- Co-operative learning
- PBL
- Group work
- Field trips
- Independent study
- Portfolio

#### *Assessment*

- Self-assessment
- 3 exams, one of which is the basics of medicine and pathology
- Assignments
- Peer assessment
- Portfolio

#### *Languages of Instruction* Finnish and English

#### *Further Information*

The core elements of the course include clinical competence, patient-oriented competence and decision-making.

### **Drug Care, 6 cr KG29PO02003 (study unit)**

#### *Lecturers*

- Raili Kurki, MNSc
- Chemist Leena Ulvinen

#### *Objectives*

Clinical Competence Students will be familiar with legislation of pharmacology and drug care and understand the nurse's responsibility in handling drugs and the patient's drug care. They will also be familiar with different forms of drugs and how to administer them. Students will be competent in taking full responsibility for correctly and conscientiously handling drugs in drug care. They will also be competent in calculating drug doses, and they will be familiar with various pharmacological substances and preparations and know how to use them correctly in the treatment of different illnesses and functional disorders. They will learn how drugs work and understand the basics of how drugs function in the human body. Finally, students will be familiar with the properties of common drugs, in which situation they can be used as well as the injurious and synergistic effects of the most common drugs.

#### *Content*

- Legislation pertaining to drug care
- Risks of drug treatment
- Forms, handling and administration of drugs
- Administration of drugs
- Documentation

- Using the Pharmaca Fennica
- Drug calculations
- Pharmacological substances and preparations
- Appropriate use of drugs
- Pharmacokinetics and Pharmacodynamics
- Purposes of drug use
- Injurious and synergistic effects of drugs

#### *Literature / Study Material*

- Downie G., MacKenzie J., Williams A. & Hind C. 2009. Pharmacology and Medicine Management for Nurses. Churchill & Livingstone
- Thyreman C. 2008. How to Master Nursing Calculations. Kogan Page.

Legislation in Englis.

#### *Learning Methods*

- Lectures
- Drug calculations and drug calculation practice
- Administration of drugs during drug calculation lessons
- Independent study
- Portfolio

#### *Assessment*

- Active participation in lessons
- Exam on theory: 50 % of the answers must be correct before students will be allowed to participate in the first practical training in Nursing Skills. Each question must be approved
- Flawless drug calculations on exam

#### *Clinical Pharmacology*

- Exam: 50 % of the answers must be correct to receive a grade
- Active participation
- Portfolio

#### *Pharmacology and Drug Care card*

- Portfolio

#### *Languages of Instruction*

Finnish and English

#### *Further Information*

The core competence learned in the course is clinical competence.

### **Practical Training in Nursing Skills, 12 cr KG29PO02004 (study unit)**

#### *Lecturers*

- Raili Kurki, MNSc
- Raija Tolonen, MNSc

#### *Objectives*

Self-development Competence Students will be competent in evaluating their own needs for expertise and professional development and in planning their internship. Patient Competence Students will be competent in creating a systematic professional relationship with patients/customers and their family members. Health Promotion Competence Students will be competent in identifying patients' personal resources and utilising them in nursing. They will be able to support patients own initiative and active participation in their care. Clinical Competence Students will be competent in comprehensively monitoring and nursing patients and their family members, and in documenting and reporting given treatment. They will also be competent in safely and aseptically administering common forms of treatment and taking samples. They will become familiar with the more common radiological examinations, the activities of the out-patient department and rehabilitation in primary health care. Drug Treatment Competence Students will be familiar with various types of drugs and be able to accurately calculate dosages. They will be competent in administering various drugs safely and correctly. Decision-making Competence Students will be competent in compiling a nursing process plan for the patient. Communication and Interaction Competence Students will understand the responsibilities of nurses and be

competent in working on multi-professional teams. Ethical Competence Students will treat their patients, colleagues, fellow students and teachers in a just and equal manner and will behave professionally and respectfully toward them. Research and Development Competence Students will be competent in utilising research information as a basis of day-to-day nursing activities and in analysing existing practices critically. They will also be competent in identifying areas of development in nursing.

#### *Content*

INITIAL PRACTICAL TRAINING, 2 cr The initial practical training takes place during the laboratory lessons in the Foundations of Nursing Skills course and the orientation day for practical training. PRACTICAL TRAINING IN A WARD AT A HEALTHCARE CENTRE OR SIMILAR UNIT, 9 cr REFLECTION ON PRACTICAL TRAINING, 1 cr

- Clinical skill test and preparation for it
- Reflection sessions

#### *Literature / Study Material*

Same as for Basics of Nursing Skills

#### *Learning Methods*

Portfolio, which includes e.g. drug care card

#### *Assessment*

Students will be graded on a pass/fail basis. To successfully complete the practical training, students must achieve the course competencies, skills and goals. The portfolio must include the learning agreement, a list of work shifts, and drug care card, the assignment on planning of the treatment of one patient according to the theory of Roper et al. Portfolio.

#### *Prerequisites*

Approved drug calculation test before the period of practical training in Nursing Skills

#### *Languages of Instruction*

Finnish and English

## **Practical training in Projects, 3 cr KG29AO05004 (study unit)**

#### *Lecturers*

- Raili Kurki, MNSc
- Raija Tolonen, MNSc

#### *Objectives*

For foreign students Communication and Interaction Competence Students will be competent in interacting with Finns and use the Finnish language in everyday situations. They will know how to use the more common Finnish expressions in various customer-service situations, such as when greeting someone, how to use polite phrases, and starting and finishing a conversation politely. Organisational and Social Competence Students will become familiar with the Finnish health-care system and social services in a related organisation, which will include getting to know the staff, the work environment, patients/visitors and the duties carried out there. They will learn about Finnish work ethics and time management at the workplace. For Finnish students Organisational and Social Competence Students will become familiar with the Finnish health-care system and social services at a non-government organisation, including its staff, work environment, patients/visitors and duties carried out there.

#### *Content*

For foreign students

- Basics of Finnish language, interaction, working time, work culture.

For Finnish students

- Functions and activities of Finnish non-government health-care organisations

#### *Literature / Study Material*

For foreign students

- See Finnish language courses

For Finnish students

- Current study material

### *Learning Methods*

- Portfolio
- Reflection
- Seminar work

### *Assessment*

- Self-evaluation
- Portfolio
- Pass/fail

### *Languages of Instruction* English and Finnish

# Degree Programme in Nursing (In Finnish)

## SPECIALISATIONS

- \* Nursing
- \* Public Health Nursing

## QUALIFICATION AWARDED

Bachelor of Health Care (Registered Nurse or Public Health Nurse)

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Teaching in the Degree Programme in Nursing follows the constructivist theory of learning. Online studies and other independent assignments promote students' self-directed, evidence-based learning.

## PROFILE OF THE PROGRAMME

The purpose of the Degree Programme in Nursing is to train experts of nursing whose work is based on multi-disciplinary knowledge, extensive nursing competence and high ethical standards. Registered nurses and public health nurses are qualified to examine, evaluate and develop their competence, work, work community and professional field. They plan, implement and develop registered nursing and public health nursing in national and international contexts.

Registered nurses and public health nurses are licensed to practise professional nursing as nurses in the social and health care sectors. The training abides by the directives of the European Council pertaining to the education of nurses responsible for general care.

## KEY LEARNING OUTCOMES

### *Bachelor of Health Care, Registered Nurse*

#### *Competence in client-oriented health care*

A Bachelor of Health Care, Registered Nurse

- \* has holistic understanding of the individual and is able to recognise the complexity of the human being using the knowledge base of neighbouring disciplines and fields.
- \* is able to recognise various functional deficiencies and disorders and their degrees of severity.

#### *Competence in health promotion*

A Bachelor of Health Care, Registered Nurse

- \* Understands the treatment chains and service networks in health care and the aetiology and medical treatment processes of the more common diseases (general practice, surgery, paediatrics, obstetrics and maternity care, mental health care, psychiatry, geriatric care and geriatrics) to define nursing needs.
- \* is able to recognise and anticipate the medical problems and threats to an individual or family/group.
- \* is able to support and empower individuals, families and groups and to assume responsibility for the maintenance and promotion of their health, resources and functional capacity.
- \* is able to apply the principles of rehabilitative health care.
- \* is able to act as an expert in health care enhancing sustainable development and environmental health.

#### *Clinical competence*

A Bachelor of Health Care, Registered Nurse

- \* is able to assume responsibility for patients'/clients' physical, psychological, spiritual and social needs and safety.
- \* is able to monitor a patient's condition, symptoms and the effectiveness of medical care in the treatment of the more common diseases, and to make necessary conclusions.
- \* is able to examine, evaluate, monitor and secure the vital functions of patients.
- \* is able to prevent infections.
- \* is able to carry out the more essential examination and treatment methods, and to correctly and safely use the necessary equipment.
- \* is able to utilise research results in treatment and follow-up.
- \* is able to support the well-being and coping of patients and their families.
- \* is able to recognise and prevent situations threatening a patient's/client's mental health and to assist him/her whenever necessary.
- \* is able to alleviate patients'/clients' pain and suffering in different life situations, also in end-of-life care.

- \* is able to provide first-aid in various care and operative environments, as well as give manual, machine and intensive resuscitation within the limits of their authority.
- \* is able to act in crises and emergency situations according to valid instructions.
- \* is able to use various instruments and aids in a safe and ergonomic way.
- \* is able to estimate a patient's total care needs.
- \* is able to implement safe medical treatment (pharmacotherapy) as prescribed by a medical doctor and monitor the effects and effectiveness of the given treatment.
- \* is able to calculate dosages of medications and understanding of clinical pharmacology essential for nursing patients of all ages.
- \* is able to manage the preparative procedures for intravenous (IV) therapy, endovascular treatment and blood transfusions, is able to prepare patients for these procedures and treatments and to monitor patients during and after IV therapy and blood transfusions.
- \* is able to cannulate the peripheral vein and implement IV therapy.
- \* is able to implement intravenous and medical treatment in the central vein.
- \* is able to recognise the risks of pharmacotherapy and to utilise information on unexpected side-effects of medical treatment to develop processes of pharmacotherapy.

#### *Decision-making competence*

A Bachelor of Health Care, Registered Nurse

- \* is able to establish and maintain client- and goal-oriented interaction and relationships with patients, families and communities.
- \* is able to assume responsibility for defining nursing needs and plans and to implement and evaluate patient care together with the patient and his/her immediate family.
- \* is able to enter nursing information onto patient documents and into data registers in accordance with data and privacy protection policies.

#### *Competence in counselling and guidance*

A Bachelor of Health Care, Registered Nurse

- \* is able to guide and counsel patients/clients, their immediate family and groups.
- \* is able to support and guide patients/clients in self-treatment and management of personal health problems and concerns.
- \* is able to teach and advise students and staff.
- \* is able to use and produce suitable counselling material and to use electronic means of patient counselling.
- \* is able to guide patients/clients in matters relating to medical treatment to promote their commitment to their health promotion and treatment.

## **KEY LEARNING OUTCOMES**

### ***Bachelor of Health Care, Public Health Nurse***

#### *Competence in nursing*

A Bachelor of Health Care, Public Health Nurse

- \* is able to base one's work on nursing science and neighbouring disciplines when encountering and nursing patients/clients and their immediate families.
- \* commands of the planning, implementation and evaluation of nursing and of professional decision-making based on research and experience.
- \* is able to utilise essential nursing procedures and to implement treatment safely.

#### *Competence in health promotion*

A Bachelor of Health Care, Public Health Nurse

- \* is able to base one's work on the strategies and programmes for promoting health and public health, and on the knowledge of one's area of responsibility and association.
- \* is able to promote the health of the population by reinforcing clients' knowledge about health, resources and self-care while recognising and intervening in threats to health if necessary.
- \* is able to participate on multi-professional teams as an expert of public health nursing and to co-ordinate activities on those teams.
- \* is able to evaluate, justify and develop the impact of health promotion in one's work.

#### *Competence in nursing the individual, family, group and community*

A Bachelor of Health Care, Public Health Nurse

- \* is able to identify clients' stages in growth and development in relation to the stages in a person's life.
- \* is able to monitor clients' health, growth and development, to identify resources and risk factors and to act accordingly.
- \* is able to engage in a confidential, open and, if necessary, long-term relationship with clients.
- \* is able to consider clients' cultural background when planning and implementing nursing.
- \* knows evidence-based nursing procedures and is able to utilise them in a client-oriented way when nursing the individual, family, group and community.
- \* is able to utilise nursing technology.

*Promotion of environmental health*

A Bachelor of Health Care, Public Health Nurse

- \* is able to evaluate the impact the environment and communities have on health and to carry out the necessary procedures to promote health and the ability to function.
- \* is able to observe global health risks and to prevent them to promote national health.
- \* is able to prevent contagious diseases and implement official vaccination schemes.
- \* is able to systematically prevent accidents in the home, at work and during leisure time and commands first aid.

*Competence in societal public health nursing*

A Bachelor of Health Care, Public Health Nurse

- \* is able to recognise the differences in the health of various groups in the population, to identify insecurity among the population and the risks to and disorders in social development, as well as to identify needs for special support and treatment and the ability to take action at an early stage.
- \* is able to collaborate and network with other interest groups to promote health and well-being.
- \* is able to recognise the impacts of decision-making and to influence local decision-making to promote the health of the population.

**OCCUPATIONAL PROFILES**

Registered nurses and public health nurses work as independent experts of nursing in primary health care, specialised medical services, and social services, and in the private and third sectors. They support, care for and counsel both healthy and ailing individuals of all ages, families, groups, and communities. Their work involves nursing in the areas of health promotion and maintenance, prevention and treatment of illness, rehabilitation and medical treatment prescribed for patients.

**ACCESS TO FURTHER STUDIES**

Students who have completed the bachelor's programme (1st cycle) are eligible to apply for studies in the second cycle after they have acquired three years' working experience in the field. The receiving higher education institution determines acceptance into the programme. Studies in the second cycle lead to a UAS master's degree: Registered Nurse (UAS master's degree) and Public Health Nurse (UAS master's degree). (University of applied sciences act 351/2003, in Finnish)

**COURSE STRUCTURE**

The courses in the degree programme are available at HOITOTYÖ 2009SH and HOITOTYÖ 2009TH.

**EXAMINATION REGULATIONS, ASSESSMENT AND GRADING**

Regulations pertaining to the operations in universities of applied sciences

**CONTACT PERSONS**

Head of the degree programme: Ms Raija Palo, tel. +358 20 124 5181, GSM: +358 40 830 3956, e-mail: raija.palo@seamk.fi

ECTS / International coordinator: Ms Helinä Mesiäislehto–Soukka, tel. 020 124 5194, GSM: 040 830 4200, e-mail: helina.mesiäislehto-soukka@seamk.fi

Student counsellor: Ms Tellervo Pihlaja, tel. +358 20 124 5180, GSM: +358 40 830 3959, e-mail: tellervo.pihlaja@seamk.fi

## Degree Programme in Nursing (In Finnish) (1.9.2009)

### HOITOTYÖ 2009SH (Nursing)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KG09A	BASIC STUDIES					60
KG09AIHE1	TERVEYS, YHTEISKUNTA JA YKSIÖ					24
KG09AIHE101	Opiskelu hoitotyön koulutusohjelmassa	x				6
KG09AIHE102	Terveys ja hyvinvointi	x				12



KG09AIHE103	Sosiaali- ja terveysalan asiakkuus	x				6
KG09AIHE2	<b>HOITOTYÖN PERUSTIEDOT JA TAITOT</b>					<b>36</b>
KG09AIHE201	Hoitotyön teoreettiset lähtökohdat	x				6
KG09AIHE202	Hoitotaitojen lähtökohdat	x				12
KG09AIHE203	Lääkehoidon perusta	x				6
KG09AIHE204	Practical training: Foundation of nursing	x				12
KG09B	<b>PROFESSIONAL STUDIES</b>					<b>144</b>
KG09AIHE4	<b>HOITOTYÖ ERI TOIMINTAYMPÄRISTÖISSÄ I</b>					<b>48</b>
KG09AIHE403	Adults and family as clients in nursing		x			15
KG09AIHE404	Aikuisen hoitotyön harjoittelu		x			33
KG09AIHE5	<b>HOITOTYÖ ERI TOIMINTAYMPÄRISTÖISSÄ II</b>					<b>18</b>
KG09AIHE503	Children, youth and families as clients in nursing		x			6
KG09AIHE504	Perhekeskeisen hoitotyön harjoittelu		x			12
KG09AIHE51	<b>HOITOTYÖ ERI TOIMINTAYMPÄRISTÖISSÄ III</b>					<b>18</b>
KG09AIHE511	The elderly and family as clients in nursing		x			6
KG09AIHE502	Practical training: Elderly nursing			x		12
KG09AIHE9	<b>HOITOTYÖN SYVENTÄMINEN</b>					<b>27</b>
KG09AIHE901	Syventävät hoitotyön opinnot			x		9
KG29AO04001	Multicultural Nursing (In English)			x		9
KG09AIHE902	Syventävä hoitotyön harjoittelu eriytyvillä alueilla			x		18
KG09AIHE7	<b>TUTKIVA JA KEHITTÄVÄ HOITOTYÖ</b>					<b>18</b>
KG09AIHE701	Työelämäosaaminen, laadunhallinta ja yrittäjyys hoitotyössä			x		8
KG09AIHE702	Hoitotieteellinen tutkimus ja hoitotyön kehittäminen			x		7
KG09AIHE704	Project training	x				3
KG09F	<b>FINAL THESIS AND MATURITY TEST</b>					<b>15</b>
KG09D	<b>FREE-CHOICE STUDIES</b>					<b>6</b>

## Degree Programme in Nursing (In Finnish) (4.1.2010) HOITOTYÖ 2009TH (Public Health Nursing)

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KG09A	<b>BASIC STUDIES</b>					<b>60</b>
KG09AIHE1	<b>TERVEYS, YHTEISKUNTA JA YKSILO</b>					<b>24</b>
KG09AIHE101	Opiskelu hoitotyön koulutusohjelmassa	x				6
KG09AIHE102	Terveys ja hyvinvointi	x				12
KG09AIHE103	Sosiaali- ja terveysalan asiakkuus	x				6
KG09AIHE2	<b>HOITOTYÖN PERUSTIEDOT JA TAITOT</b>					<b>36</b>
KG09AIHE201	Hoitotyön teoreettiset lähtökohdat	x				6
KG09AIHE202	Hoitotaitojen lähtökohdat	x				12
KG09AIHE203	Lääkehoidon perusta	x				6
KG09AIHE204	Practical training: Foundation of nursing	x				12
KG09B	<b>PROFESSIONAL STUDIES</b>					<b>175</b>
KG09AIHE4	<b>HOITOTYÖ ERI TOIMINTAYMPÄRISTÖISSÄ I</b>					<b>48</b>

KG09AIHE403	Adults and family as clients in nursing		x			15
KG09AIHE404	Aikuisen hoitotyön harjoittelu		x			33
KG09AIHE5	<b>HOITOTYÖ ERI TOIMINTAYMPÄRISTÖISSÄ II</b>					<b>18</b>
KG09AIHE503	Children, youth and families as clients in nursing		x			6
KG09AIHE504	Perhekeskeisen hoitotyön harjoittelu		x			12
KG09AIHE51	<b>HOITOTYÖ ERI TOIMINTAYMPÄRISTÖISSÄ III</b>					<b>18</b>
KG09AIHE511	The elderly and family as clients in nursing		x			6
KG09AIHE502	Practical training: Elderly nursing			x		12
KG09AIHE91	<b>TERVEYDENHOITAJATYÖN SYVENTÄVÄT OPINNOT</b>					<b>60</b>
KG09AIHE911	Terveyden edistämisen osaaminen			x		8
KG09AIHE912	Terveydenhoitajatyön osaaminen elämänkulun eri vaiheissa			x		13
KG09AIHE913	Yhteiskunnallisen ja monikulttuurisen terveydenhoitajatyön osaaminen			x		3
KG09AIHE914	Terveydenhoitajatyön johtamis-, tutkimus- ja kehittämisosaaminen			x		6
KG09AIHE915	Antenatal and obstetric nursing			x		7
KG09AIHE916	Lapsen ja hänen perheensä terveydenhoitajatyö			x		5
KG09AIHE917	Kouluikäisen ja nuoren sekä heidän perheidensä terveydenhoitajatyö			x		4
KG09AIHE918	Työikäisen ja hänen perheensä terveydenhoitajatyö			x		6
KG09AIHE919	Vanhuksen ja hänen perheensä terveydenhoitajatyö			x		8
KG09AIHE7	<b>TUTKIVA JA KEHITTÄVÄ HOITOTYÖ</b>					<b>16</b>
KG09AIHE711	Työelämäosaaminen, laadunhallinta ja yrittäjyys hoitotyössä			x		6
KG09AIHE702	Hoitotieteellinen tutkimus ja hoitotyön kehittäminen			x		7
KG09AIHE704	Project training	x				3
KG09F	<b>FINAL THESIS AND MATURITY TEST</b>					<b>15</b>
KG09D	<b>FREE-CHOICE STUDIES</b>					<b>5</b>

## Study Descriptions

### Opiskelu hoitotyön koulutusohjelmassa, 6 op KG09AIHE101 (study unit)

#### Lecturers

- Tellervo Pihlaja, MASc
- Simo Ranta, MSc (Nursing)
- Kaarina Ketonen, MSc (Nursing)
- Aija Risku, MASc
- Ritva Kuoppamäki PhD
- Silja Saarikoski MSc

#### Objectives

Competence in Self-development Students will be aware of the professional qualifications required of nurses and public-health nurses, and they will possess motivation to learn these qualifications during their studies. Students will be competent in studying and know how to acquire information from various sources independently. They will respect themselves as learners and be able to identify and utilise their strengths. Competence in Communication and Interaction Students will have a positive attitude toward their studies and future profession. They will be aware of their strengths as communicative human beings and be able to get along with different types of people and groups. Students will accept the differences in people and groups and take these differences into consideration in work-related interaction and group situations. Students will be competent in writing academic texts in Finnish and in abiding by instructions for written communication.

#### Content

- Being a student in the university of applied sciences, in the Degree Programme in Nursing and as a member of a group
- Learning environment
- Information and working with it
- Acquiring information
- Educational science as a science
- Theories of learning and teaching
- Life-long learning
- Self-guidance, self-leadership
- Qualifications and competencies required of nurses and public-health nurses
- Profession, occupation, areas of activity and duties
- International perspective of nursing
- Socialisation of the individual/culture
- Self-esteem and self-confidence
- World of values
- Self-knowledge
- Communication skills
- Team – group
- Group membership
- Group dynamics/group process
- Group feedback
- Group learning
- Interaction and professional interaction
- Research communication
- Academic writing and ways of documenting information
- Academic essays, summaries, reports, posters, journals
- Planning what to write, the writing process, revision and documenting
- Writing instructions

#### *Literature / Study Material*

- Study Guide of the Degree Programme in Nursing
- Dunderfelt T. 2006. Elämäntapa- ja elämäntutkimus. WSOY.
- Vilen M., Leppämäki P. & Ekström L. 2002. Vuorovaikutuksellinen tukeminen sosiaali- ja terveysalalla. WSOY. (assigned chapters).
- Kopakkala A. 2005. Porukka, jengi, tiimi. Ryhmädynamiikka ja siihen vaikuttaminen. Edita. (assigned chapters).
- Repo I. & Nuutinen T. 2003. Viestintätaito. Opas aikuisopiskelun ja työelämän vuorovikautustilanteisiin. Otava.
- Seinäjoki University of Applied Sciences. 2008. Instructions for Writing a Text;
- Other current material assigned by the lecturer.

#### *Learning Methods*

- Written assignments
- Lectures
- Group work
- Seminar
- Co-operative learning
- Independent study

#### *Assessment*

Seminar paper and presentation of it; the seminar paper should be written according to the Instructions for Writing a Text guidebook. The paper is graded by the course teachers. Numerical grades will be given for the work.

#### *Prerequisites*

First study module in the programme

#### *Languages of Instruction*

Finnish

#### *Further Information*

Basic principles

- Security, reliability, appreciation and co-operation
- Self-development
- Communication and interaction with others
- Ethics

- Multicultural awareness
- Entrepreneurship
- Professional awareness

## **Terveys ja hyvinvointi, 12 op KG09AIHE102 (study unit)**

### *Lecturers*

- Helinä Mesiäislehto–Soukka, PhD
- Hilka Majasaari, MSc (Nursing)
- Mari Heinonen, MA
- Harri Katajamäki, MA
- Leena Katajamäki, MSc (Nursing)

### *Objectives*

Competence in Promoting Health Students will be competent in identifying the factors influencing the health and healthy environment of individuals of different ages and their families. They will be competent in utilising models of health promotion when choosing methods for promoting health. They will support and activate patients in taking responsibility for the maintenance and promotion of their health and resources. They will also identify local, regional, national and global health threats to the individual, families and population. Students will become familiar with the human body and its normal functions. Competence in Communication and Interacting Students will be competent in working professionally in Finnish and English in various environments and utilise their acquired expertise in interacting, co-operating and communicating with patients. They will strengthen patients' (the individual, group, family, and population) resources and participation in the promotion of health. They will also be able to analyse and reflect on one's own competence in interacting and collaborating with others Competence in the International Environment Students will be competent in utilising national and international health programmes to promote patients' health. They will be able to identify the challenges concerning health care in a multicultural environment and exhibit expertise in customer-oriented consultation. Students will also be competent in utilising international, field-related sources of information.

### *Content*

- Health, health promotion, promoting the health of people of all ages, national and global challenges to health promotion
- Environment, impact of the environment on health, preventing national diseases
- Professional interaction and collaboration
- Dialog in a collaborative relationship, health communication and well-being technology
- Concept of consultation
- Customer-centred consultation
- Legislation and recommendations regulating professional activity
- National and international health programmes
- The human body and its functions
- English language

### *Literature / Study Material*

- Articles from Premissi, Hoitotiede, Tutkiva hoitotyö and Kansanterveys scientific journals.
- Government Resolution on the Health 2015
- Åstedt–Kurki P. et al. 2008. Kohti perheen hyvää hoitamista. WSOY.
- Pietilä A.–M. et al. (eds.) 2002. Terveystieteen edistäminen. Uudistuvat työmenetelmät.
- Saarinen K. & Saarinen J. 2007. Way to Health.
- Kauhanen J. et al. Kansanterveystiede. Latest edition. (assigned parts).
- Tehoa tupakasta vieroitukseen terveydenhuollossa (online material).
- Articles and cases to motivate discussion
- Anatomy and physiology textbook
- English learning material
- Current articles

### *Learning Methods*

- Lectures
- Co-operative learning and other related learning methods
- Online study
- Case studies
- Independent study

### *Assessment*

- Active participation
- Self-assessment
- Performance assessment
- Peer assessment
- Test on online studies
- Assignments
- Exams

### *Languages of Instruction*

Finnish and English

### *Further Information*

- The foundation of the course comprises knowledge of health promotion, communication and social skills, and multicultural awareness.
- Two credits of the course will be taught in English.
- One credit of the course will involve integrated R&D teaching. One credit of the course will be taught in on-line learning environment

## **Sosiaali- ja terveysalan asiakkuus, 6 op KG09AIHE103 (study unit)**

### *Lecturers*

- Kari Jokiranta PhD
- Helinä Mesiäislehto-Soukka PhD
- Annu Peltoniemi PhD
- Mari Heinonen MA

### *Objectives*

Organisational and Societal competence Students will understand the basic principles and operational models associated with the Finnish political and administrative service system. They will become familiar with the hierarchy of treatment and the public, private and third-sector areas of activity for receiving treatment. They will also be introduced to the social security system. Students will be competent in identifying the impact of international strategies and policies on social welfare and health care services. Competence in Caring for Patients and in Ethics Students will become familiar with the rights, responsibilities and data security of patients from the point of view of organisations that provide social welfare and health care services. They will be competent in utilising information when working with patients and, together with the patients, evaluate their health and resources when planning appropriate services for them. Students will also be competent in developing and generating information concerning client-centred nursing and ethics. They will be able to treat patients in English as well. Entrepreneurial Competence Students will be competent in identifying potential clients in the operational environment and possess abilities to predict opportunities from the viewpoint of entrepreneurship.

### *Content*

- Health care and social welfare system in Finland and the laws regulating it
- EU-based and international legislation regulating health care and social work
- Concept of client relationship and significance of client information in client-oriented work
- Target clients
- Client satisfaction
- Activities in a service-providing company
- Operational environment analysis
- Types of companies and the norms regulating business operations
- English language

### *Literature / Study Material*

- Articles from science journals: Premissi, Hoitotiede, Tutkiva hoitotyö
- Terveys 2015 programme
- Political policies related to the topics discussed
- Legislation regulating health care and social welfare (applicable parts)
- Other current material

### *Learning Methods*

- Lectures
- Online studies

- Independent studies

#### *Assessment*

- Self-evaluation
- Evaluation of performance
- Peer evaluation
- Assignments
- Exams

#### *Languages of Instruction*

Finnish

#### *Further Information*

Online Studies: 2 cr Organisational and societal competence, client relationships and ethics, entrepreneurship

## **Hoitotyön teoreettiset lähtökohdat, 6 op KG09AIHE201 (study unit)**

#### *Lecturers*

- Marjut Nummela, LSc (Health Care)
- Liisa Ahola, MSc (Health Care)
- Annu Peltoniemi, PhD
- Aija Risku, MNS
- Katriina Kuhalampi, MSc (Health Care)
- Kaarina Ketonen, MSc (Health Care)

#### *Objectives*

Ethical Competence Students will become familiar with the philosophical aspects of nursing. They will understand the ethical problems associated with nursing and the ethical decision-making involved in nursing. They will also become familiar with the legislation regulating nursing practices. They will understand the significance of science in nursing and the status of nursing science alongside other sciences, as well as philosophical concepts associated with nursing. Students will have command of the principles of good, rehabilitative nursing and know how to handle ethical situations in decision-making using appropriate literature. Students will develop critical and reflective thinking skills concerning the practicality of nursing. They will form a general picture of the principles of nursing and nursing practices. Finally, students will become familiar with the phases in the history of nursing and its characteristics. Competence in Research and Development Students will understand the significance and development of scientific study in nursing, nursing as a basic science and other sciences as supporters of the science of nursing. They will become familiar with the concept of nursing and the activities involved in nursing. They will have command of the nursing processes and know how to apply those processes in practice. They will also understand the significance of the development of nursing from the point of view of its history.

#### *Content*

- Science and theory
- Philosophical thinking and chief concepts
- Science of nursing as a field of science
- Areas of research in nursing
- Concept of ethics
- Values, norms and ethical principles in nursing
- Medical confidentiality and duty to disclose
- Ethical decisions-making in nursing
- Nursing as a concept and practice
- Principles of nursing
- Care and counseling relationship
- Nursing process
- Models of nursing
- Phases of development in caring, treatment and nursing and the distinctive characteristics of nursing practices during different time periods.
- Development of the theory of nursing and training from the 1800s to today

#### *Literature / Study Material*

- Eriksson K. & al. 2007. Hoitotiede. WSOY.
- Leino-Kilpi H. & Välimäki M. 2003. Etiikka hoitotyössä. WSOY.

- Sorvettula M. 1998. Johdatus suomalaisen hoitotyön historiaan. Suomen sairaanhoitajaliitto ry.
- Laine T. and Kuhmonen P. 1998. Ajattelukirja filosofiaan. University of Jyväskylä.
- Sajama S. 1993 (or later edition). Arkipäivän filosofiaa. Kirjayhtymä.
- Kassara H. et al. 2004. Hoitotyön osaaminen. WSOY.
- Other current material provided by the lecturer.

### *Learning Methods*

- Problem-based learning
- Online studies
- Independent study

### *Assessment*

- Independent work
- Group work
- Learning processes
- Learning results
- Assignments

### *Prerequisites*

First study module

### *Languages of Instruction*

Finnish

### *Further Information*

- Online studies, 2 cr
- R&D integrated teaching, 2 cr
- Primary topics: ethics, research and development

## **Hoitotaitojen lähtökohdat, 12 op KG09AIH202 (study unit)**

### *Lecturers*

- Marja Toukola, MSc (Health Care)
- Katri Mäki-Kala, MSc (Health Care)
- Liisa Ahola, MSc (Health Care)
- Kristiina Vaahtera, MSc (Health Care)
- Mari Salminen-Tuomaala, MSc (Health Care)
- Tarja Knuuttila, MSc (Health Care)
- Leena Katajamäki, MSc (Health Care)
- Katriina Kuhalampi, MSc (Health Care)
- Harri Katajamäki, MA
- Paula Paussu, MSN
- Erna Nikkola LA,
- Juhani Laakso, PhD

### *Objectives*

Clinical Competence Students will be competent in identifying the need for first-aid and a patient's ability to function in first-aid situations. They will possess the ability to promote patients' health and a safe environment by taking responsibility for aseptic work. Students will also be competent in making choices concerning nursing methods and argue in favour of the choice based on research. They will provide care in a patient-oriented way. They will also have command of the essential procedures needed to examine patients' health condition. Competence in Patient Relations Students will be competent in working in a patient-oriented way and in evaluating and developing work with patients. They will be able to compile treatment plans while abiding by the regulations set for writing the documents in question. Students will be competent in carrying out the set plans and in evaluating the treatment of patients and the care of patients' family members in situations where a patient is terminally ill. Competence in Decision-making Students will be competent in planning, implementing and evaluating treatment in a patient-oriented way. They will also be competent in utilising current, substantiated information as a foundation for decision-making. They will possess the ability to systematically document, report and monitor patient data using information technology and networks. They will also be competent in presenting well-founded perspectives on multi-professional teams as an expert in nursing. Competence in Counseling Students will be competent in consistently counseling patients in a patient-oriented way and in appropriately applying methods of consultation to individuals, families and communities.

### *Content*

- Actions that support the care of a person's health
- Taking a rehabilitative approach to work
- Working in dangerous and unusual conditions and in situations where first-aid is required
- Preventing infections, basics of microbiology and theory of disease
- Treatment of and encounters with patients
- Patient-oriented counseling, planning, implementation and assessment
- Caring for terminally ill patients and the deceased, as well as supporting their families
- Professional decision-making
- Integration of other sciences, e.g. medicine and natural sciences

#### *Literature / Study Material*

- Kassara H.& al. 2004. Hoitotyön osaminen. WSOY.
- Sahi T. et al. 2006. Ensiapuopas. Duodecim and Finnish Red Cross.
- Hellsten S. (ed.). 2002. Kliininen mikrobiologia terveydenhuollossa. Association of Finnish Local and Regional Authorities. Chapters 1–7.
- Articles from science journals and other current material

#### *Learning Methods*

- Lectures
- Laboratory work
- Group work
- Co-operative learning
- Problem-based learning
- Field trips
- Independent study

#### *Assessment*

- Self-evaluation
- Evaluation of performance (3 exams, one of which involves the basics of medicine and the theory of disease)
- Assignments
- Peer evaluation

#### *Languages of Instruction*

Finnish

#### *Further Information*

Core competent: patient relations, clinical competence, competence in decision-making and counseling.

## **Lääkehoidon perusta, 6 op KG09AIHE203 (study unit)**

#### *Lecturers*

- Katri Mäki-Kala, MSc (Nursing)
- Liisa Ahola MSc, (Nursing)
- Marja Toukola, MSc (Nursing)
- Kristiina Vahtera, MSc (Nursing)
- Chemist Leena Ulvinen

#### *Objectives*

Clinical Competence Students will be familiar with the regulations pertaining to drug care, and they will have a profound understanding of the responsibilities of nurses in handling drugs and administering drugs to patients. Students will know various types of drugs and how to administer them and possess the responsibility needed to correctly and carefully handle them. They will have command of the calculations necessary in drug care. Students will be familiar with various drug substances and pharmaceutical preparations and know how to use them properly to treat various illnesses and disorders. They will also be familiar with the impact of various medicines and understand the impact of various drugs on the body. Furthermore, students will be familiar with the primary features of the more common drugs, their uses, and side effects and synergy.

#### *Content*

- Legislation pertaining to drug care
- Risks in drug care
- Types of drugs, handling drugs and ways to administer drugs
- Distribution of drugs



- Documenting drug care
- Using the Pharmaca Fennica
- Maintenance of drugs
- Drug calculations
- Drugs and pharmaceutical preparations
- Appropriate use of drugs
- Impact of drugs on the body
- Uses of drugs
- Side effects and synergy of drugs

### *Literature / Study Material*

- Nurminen M.–L. 2006. Lääkehoito. 7th edition. WSOY. (assigned chapters)
- Lääkelaki (amended)
- Ministry of Health and Welfare. 2006. Turvallinen lääkehoito.
- Ernvall S. et al. 2005. Lääkelaskenta. 5th edition. WSOY.
- Material provided by the lecturer.

### *Learning Methods*

- Lectures
- Mathematics for drugs
- Drug calculations
- Practising drug administration during calculations lessons
- Using the drug care card (throughout entire course)
- Independent study

### *Assessment*

- Active participation
- Theory: exam in which 50 % must be correct and each question approved (numerical grade)
- Calculations: exam completed without mistakes

Exam on drug calculations must be completed and approved before the first practical training for Basics in Nursing.  
CLINICAL PHARMACOLOGY

- Active participation
- Exam: 50 % must be correct to receive a grade

### *Languages of Instruction* Finnish

### *Further Information*

The Clinical Pharmacology course takes place at the beginning of the third semester, at the same time as the Internal Medicine and Surgery courses. Essential topics comprise clinical expertise, which includes Drug Care.

## **Practical training: Foundation of nursing, 12 op KG09AIHE204 (study unit)**

### *Lecturers*

- Mari Salminen–Tuomaala, MSc (Health Care)
- Tarja Knuuttila MSc (Health Care)
- Marja Toukola, (MSc (Health Care)

### *Objectives*

Competence in Self–development Students will be competent in evaluating their needs for expertise and plan the content of their practical training. They will reflect on the phases of their professional development. Competent in Patient–oriented Nursing Students will be competent in creating a systematic relationship with patients and their family members. Competence in Health Promotion Students will be competent in recognising patients' positive resources and in utilising them to treat the patients in question. Students will also be competent in supporting patients' independency and active participation in their treatment. Clinical Competence Students will be competent in comprehensively monitoring and taking care of patients and their family members. The will also be competent in documenting and reporting about administered treatment. They will be able to safely administer common forms of treatment and take samples. They will be able to implement various forms of treatment and provide reasons for doing so based on the principles of nursing and research. Students will be competent in working in an aseptic manner, and they will become familiar with the more common radiological examinations, rehabilitation, and know how to take common blood samples. Competence in Drug

Treatment Students will be familiar with various types of drugs, know how to precisely calculate dosages, and administer drugs to patients correctly. Competence in Decision-making Students will be competent in compiling a treatment plan for patients. Competence in Communication and Interaction Students will be familiar with the duties and responsibilities of nurses and be competent in working on multi-professional staff teams. Ethical Competence Students will treat their patients, colleagues, peers and lecturers with equality and behave in a professional and respectful manner. Competence in Research and Development Students will be competent in utilising evidence-based knowledge in nursing practices. They will question existing nursing practices and be able to recognise areas of development.

#### *Content*

INITIAL PRACTICAL TRAINING (2 cr) takes place during the laboratory lessons in the Basics of Nursing Skills course and the orientation day for practical training. PRACTICAL TRAINING IN A WARD AT A HEALTHCARE CENTRE OR SIMILAR UNIT (9 cr) REFLECTION ON PRACTICAL TRAINING (1 cr) includes a skills test, preparation for it and reflection.

#### *Literature / Study Material*

Same literature and material as in the Basics of Nursing Skills course

#### *Learning Methods*

Portfolio, which includes e.g. drug care card

#### *Assessment*

Students will be graded on a pass/fail basis. To successfully complete the practical training, students must complete the Initial Practical Training, complete practical training in a ward at a healthcare centre or similar unit, complete skill test, participate in the orientation and reflection for the practical training, fill out a Learning Agreement and submit it, compile a list of work shifts and return it, and abide by the work schedule, fill out a card that indicates they possess skills in drug care, submit a written report concerning the plan of one patient's treatment.

#### *Languages of Instruction*

Finnish

#### *Further Information*

The essential topics of the course include self-development, patient relations and decisions-making, health promotion, clinical expertise, drug treatment, communication and interaction with others, ethics, and research and development.

## **Adults and family as clients in nursing, 15 op KG09AIHE403 (study unit)**

#### *Lecturers*

- Paula Paussu, MSN
- Liisa Ahola, MSc (Health Care)
- Raili Kurki, MSc (Health Care)
- Kristiina Vaahtera, MSc (Health Care)
- Mari Salminen-Tuomaala, MSc (Health Care)
- Tarja Knuuttila, MSc (Health Education)
- Simo Ranta, MSc (Health Care)
- Leena Katajamäki, MSc (Health Care)
- Anna Saari, MSc (Health Care)
- Juhani Laakso, PhD
- Harri Katajamäki, MA
- Hillevi Eromäki, MSc

#### *Objectives*

Competence in Self-development Students will be competent in critically evaluating their level of professional expertise with regard to their strengths and weaknesses. Competence in Treating Patients and Decision-making Students will be competent in identifying the needs of adult patients and their families and in planning, implementing, evaluating and documenting treatments. They will also be competent in dealing with patients in various life crisis situations. They will understand the principles of patient-oriented, resource-based and multi-professional nursing of patients and their families. Competence in Counseling and Guidance Students will be competent in promoting the health of adults and supporting their personal resources in multi-professional nursing on the national and international levels. Clinical Competence Students will be competent in identifying and evaluating sudden changes and disorders in a patient's basic vital functions and in initiating appropriate treatment. They will be competent in preparing patients for treatment and monitoring and caring for them during and after treatment using Finnish and Swedish. Students will know how to work aseptically to prevent infections from spreading. Students will be familiar with the procedures to take when encountering substance abusers and know how to take preventive action against substance abuse. They will have knowledge of various types of examinations, surveys and samples, and how to interpret their results, and they will know how to prepare patients for the more common types of examinations. Students will gain knowledge of how to plan and safely implement and evaluate the liquid and drug treatment of an adult patient. They will also gain insight into the nutritional treatment of

patients with common diseases. They will be familiar with the more common illnesses that internal disease patients, surgical patients and psychiatric patients have and the methods for diagnosing and treating such illnesses in general.

### *Content*

- Patient– and resource–based guidance process when treating adults
- Promoting the health of adults and supporting rehabilitation
- Occupational health and the factors affecting it as well as the essential concepts associated with occupational health
- Comprehensive health examination for adults
- Written health care plans
- Identifying the acute health condition of an adult, examining vital functions, evaluation and monitoring, as well as immediate treatment procedures
- Surgical treatment of patients with common diseases and notification of them in writing and verbally
- Peripheral Intravenous Cannulation, intravenous fluid and drug treatment, blood transfusions
- Guiding patients in drug care
- Treating cuts
- Familiarisation with treatment and examination technology, using equipment safely
- Crisis care
- Substance abuse care
- Areas and levels of psychiatric treatment, and the entire service providing system
- Patient– and resource–based treatment and the associated interviewing techniques to use with patients and their family members as part of the treatment plan
- Swedish language

### *Literature / Study Material*

- Havio M. & al. 2008. Päihdehoitotyö. Tammi.
- Health in All Policies. 2006. Prospects and Potentials. Finland/EU.
- Holmia S. & al. 2004. Sisätautien, kirurgisten sairauksien ja syöpätautien hoitotyö. WSOY. (as assigned).
- Kuisma M. & al. 2008. Ensihoito. Tammi (as assigned).
- Kyngäs H. & al. 2007. Ohjaaminen hoitotyössä. WSOY.
- Lepola U. & al. 2002. Psykiatria. WSOY (as assigned).
- Noppari E. & al. 2007. Mielenterveystyö perusterveydenhuollossa. Tammi.
- Salaspuro M. & al. 2003. Päihdelääketiede. 2nd edition. Duodecim.
- Ministry of Social Affairs and Health. Turvallinen lääkehoito – Valtakunnallinen opas lääkehoidon toteuttamisesta sosiaali- ja terveydenhuollossa.
- Pääkkönen R. & al. 2006. Työn terveysvaarojen tunnistaminen. Ministry of Social Affairs and Health: Finnish Institute of Occupational Health.
- Other current learning material

### *Learning Methods*

- Interactive and co–operative learning methods
- Online learning
- Possible portfolio
- Independent study

### *Assessment*

- Active participation
- Sessions with supervisor
- Written assignments
- Possible portfolio
- Exams

### *Prerequisites*

- Basic Nursing Skills course
- Approved training period for Introduction to Nursing

### *Languages of Instruction*

Finnish

### *Further Information*

Core competences: self–development, skills in patient–oriented nursing and decision–making, skills in counseling and guiding others, health promotion, and clinical competence.

## **Aikuisen hoitotyön harjoittelu, 33 op KG09AIHE404 (study unit)**

### *Lecturers*

- Paula Paussu, MSN
- Katri Mäki-Kala, MSc (Health Care)
- Liisa Ahola, MSc (Health Care)
- Mari Salminen-Tuomaala, MSc (Health Care)
- Kristiina Vaahtera, MSc (Health Care)
- Erna Nikkola, LSc
- Tarja Knuuttila, MSc (Health Care)
- Ritva Kuoppamäki, PhD
- Raija Tolonen, MSc (Health Care)
- Anna Saari, MSc (Health Care)
- Leena Katajamäki, MSc (Health Care)
- Simo Ranta, MSc (Health Care)

### *Objectives*

Competence in Promoting Health Students will be competent in giving examinations to adult patients and in instructing patients on how to promote their health and prevent illnesses. Clinical and Counseling Competence Students will be competent in planning and implementing intravenous drug treatment, blood transfusions and other treatments prescribed to patients. They will also be competent in planning, implementing and evaluating treatment for surgical patients with internal diseases, together with the patients, their family members and members of multi-professional staff teams. They will know how to document information concerning patients' health condition and to report about it verbally. Students will also be competent in carrying out treatments and examination prescribed to patients and in using the more common technological equipment needed in nursing. Students will be competent in dealing with people showing symptoms of a psychological disorder or who are otherwise ill, and they will have skills in creating confidential treatment relationship with patients who have a psychological disorder. Students will utilise their knowledge of counseling together with their own supervisor.

### *Content*

- Promoting the health of adults: laboratory training and clinical training
- Laboratory training and clinical training in treating surgical patients
- Laboratory training and clinical training in treating mental health patients

### *Literature / Study Material*

Same literature and material as in the theory studies

### *Learning Methods*

- Laboratory work
- Training
- Seminar work

### *Assessment*

- Training portfolio
- Assignments

### *Prerequisites*

Foundations of Basic Nursing Skills and associated training period

### *Languages of Instruction*

- Finnish
- Language used for international exchanges

### *Further Information*

Core competences: clinical expertise, knowledge of ethics, skills in promoting health, skills in counseling others

## **Children, youth and families as clients in nursing, 6 op KG09AIHE503 (study unit)**

### *Lecturers*

- Kaarina Ketonen, MSc (Health Care)

- Marja Toukola, MSc (Health Care)
- Kaisa Leppilähti, MA
- Aija Risku, MNS
- Simo Ranta, MSc (Health Care)
- Juhani Laakso, PhD

### *Objectives*

Competence in Self–development Students will be competent in evaluating their needs to develop their professional expertise and know how to reinforce the developmental processes that have already taken place in them as regards their profession. Competence in Promoting Health, Counseling and Guidance Students will be competent in guiding and supporting the health of a family that is expecting a child and in developing early bonding between a newborn baby and its parents. Students will also be competent in counseling and supporting children of different ages and their families in their health growth and development, as well as in how to take care of themselves. Clinical Competence Students will be competent in evaluating the stages of development in children and youth of different ages and in identifying factors that may threaten their health. They will also be competent in supporting and nursing healthy, ill and disabled children of different ages and their family members. Students will utilise recommendations for treatment and multi–disciplinary research information as a basis for their work. They will be familiar with the more common problems associated with reproduction, illness among children and youth, developmental disorders, threats to mental health, as well as with how to treat and research the mentioned problems. Organisational and Societal Competence Students will be familiar with the social welfare and health care service system as regards children and youth and their families. They will be competent in helping them use those services appropriately. Ethical Competence Students will be competent in treating children and youth and their families with respect and in confidentiality.

### *Content*

- Children and youth and their families as clients in the social welfare and health care service system
- Development of the service system nationally and internationally
- Counseling and guidance and a method of nursing in the promotion of the health of children and youth and their family members, as well as in supporting growth into parenthood, motherhood and fatherhood
- Caring for pregnant women and women who have given birth and their families
- Comprehensive growth and development of children of different ages and supporting that growth and development
- Changes in families and identifying situations of crisis and early intervention
- Identifying and intervening in threatening family situations
- Safe nursing environments and preventing accidents
- Sudden and long–term illnesses of children and youth
- Children and youth suffering from psychological and social problems
- Counseling and supporting children and youth in family–oriented nursing in Finnish and in Swedish
- Common procedures for examining and treating children and youth
- Common treatments and diagnostics for disorders and illnesses associated with sexuality and reproduction

### *Literature / Study Material*

- Eskola K. & Hytönen E. 2002. Nainen hoitotyön asiakkaana. WSOY.
- Ivanoff P. & al. Hoidatko minua? WSOY.
- Other current material as indicated.

### *Learning Methods*

- Lectures
- Group work
- Assignments
- Students–oriented learning methods

### *Assessment*

- Exams
- Assignments

### *Languages of Instruction* Finnish

### *Further Information*

Core competences: self–development, ethical competence, health promotion, competence in counseling and guidance, clinical competence, organisational and societal competence.

## **Perhekeskeisen hoitotyön harjoittelu, 12 op KG09AIHE504 (study unit)**

### *Lecturers*

- Kaarina Ketonen, MSc (Nursing)
- Marja Toukola, MSc (Nursing)
- Kaisa Leppilähti, MSc
- Aija Risku, MNS

### *Objectives*

Ethical, Clinical and Counseling Competence Students will be competent in communicating with, caring for and counseling healthy, ill or disabled children and youth of different ages and their families in their various life situations and in changes in health conditions.

### *Content*

- Family-centred Nursing ward for children and youth laboratory training: 1 cr
- Family-centred Nursing clinical training: 9 cr, e.g. in daycare centres, emergency rooms, children's wards, maternity wards, psychiatric ward for children and youth, child welfare clinics, units providing specialised services for children and youth, projects, organisations, and voluntary work.

### *Literature / Study Material*

Same literature and material as in the theory course.

### *Learning Methods*

- Training portfolio
- Seminar work

### *Assessment*

Approved training portfolio, including assignments therein.

### *Languages of Instruction*

Finnish or the language used in international exchanges.

### *Further Information*

Core competence includes ethical, clinical and counseling competence.

## **The elderly and family as clients in nursing, 6 op KG09AIHE511 (study unit)**

### *Lecturers*

- Kristiina Vaahtera, MSc (Nursing)
- Liisa Ahola, MSc (Nursing)
- Tarja Knuuttila, MSc (Health Education)
- Helena Koskinen, MSc (Nursing)
- Anna Saari, MSc (Nursing)

### *Objectives*

Competence in Self-development Students will be competent in evaluating their own actions in relation to caring for the elderly, and they will be able to identify their own needs for professional development. Ethical Competence Students will appreciate the elderly and work consistently according to the ethical principles of nursing. Competence in Working with Patients, Communication and Interaction Students will be competent in approaching the elderly and their family members in a professional manner and in supporting their personal resources. They will also be competent in working in an way that takes the patient's needs and wishes into consideration. Students will be able to work on multi-professional staff teams and to report both in writing and verbally the issues required in work with the elderly. Clinical Competence and Competence in Promoting Health Students will be competent in identifying, predicting and preventing the more common diseases and health problems suffered by elderly people and in reinforcing the personal resources and ability to function of the elderly and their family members. They will be familiar with the special requirements of drug administration to elderly people, how to administer drugs safely, aseptically and precisely. Students will be aware of their responsibility as regards the guidance of drug treatment for elderly people. Counseling and Guidance Competence Students will be competent in counseling elderly people while taking into consideration their changes due to aging, their personal resources and ability to function. Students will also be competent in considering the needs for counseling of the family members of an elderly person. Competence in Decision-making Students will be competent in working according to the needs and wishes of elderly people in goal-oriented interaction and nursing relationships. They will take responsibility for making holistic nursing plans and associated documents. Competence in Research and Development

Students will be competent in critically and openly evaluating their own activities and the activities in their training unit. They will be able to use the community as a resource in caring for elderly people. Students will be able to work creatively and in a way that suits their personality and that promotes development. Students will abide by the principles of high-quality, ethical care when working with elderly people. Organisational and Societal Competence Students will be familiar with the service system for the social welfare and health care of elderly people, and they will be competent in guiding elderly people and their family members in seeking and using the appropriate services. Students will be familiar with the local, regional, national and international schemes concerning elderly care policies. Multicultural Competence Students will be competent in working with elderly people, their families and work communities that represent different ethnic backgrounds.

### *Content*

- Expertise and areas of competence in elderly care
- Social welfare and health care system for the elderly
- Elderly care policies
- Changes due to aging
- Special features of elderly people who are ill and their medical care
- Evaluating the health and ability to function of elderly people and supporting them
- Spiritual needs of elderly people
- Planning the care and rehabilitation of elderly people and implementation and evaluation pertaining to various disorders, threats, problems, or illnesses together with the patient and his/her family members and on a multi-professional staff teams
- Care and service plans and notifying others of them
- Guiding and supporting hobbies and recreational activities as a method in caring for the elderly
- Special features of drug treatment for the elderly, typical side effects and combined effects as well as counseling about drug treatment

### *Literature / Study Material*

- Vallejo Medina A. & al. 2006. Vanhusten hoito. WSOY.(assigned parts).
- Eloranta T. & Punkanen T. 2008. Vireään vanhuuteen. Tammi. (assigned parts).
- Kivelä S.–L. 2004. Vanhusten lääkehoito. Tammi. (assigned parts).
- Tilvis & al. 2003. Geriatria. Duodecim. (assigned parts).
- Heikkinen E. & Rantanen T. 2008. Gerontologia. Duodecim. (assigned parts)

### *Learning Methods*

- Lectures
- Groups assignments
- Seminar assignments
- Orientating exercises
- Field trips
- Independent study

### *Assessment*

- Active participation
- Assignments
- Exams

### *Prerequisites*

- Theoretical Foundations of Nursing
- Foundations of Nursing Skills
- Training in the Foundations of Nursing
- Foundations of Drug Care
- Nursing Surgical Patients and Training

### *Languages of Instruction*

Finnish

### *Further Information*

The core competences in the course include self-development, ethics, patient-oriented work, communication and interaction, clinical competence, health promotion, decision-making and development, organisational and societal competence and international competence.

## **Practical training: Elderly nursing, 12 op KG09AIHE502 (study unit)**

### *Lecturers*

- Kristiina Vaahtera, MSc (Nursing)
- Tarja Knuuttila, MSc (Health Education)
- Liisa Ahola, MSc (Nursing)
- Helena Koskinen, MSc (Nursing)
- Anna Saari, MSc (Nursing)

### *Objectives*

This training period has the same objectives as The Elderly and Their Family as Clients of Health Care Services (6 cr).

### *Content*

Laboratory Training in Elderly Care (2 cr)

- Seminar work
- Field trips
- Planning and participation in the implementation of theme-based events and projects
- Implementation planned together with students, teachers and interest groups

Clinical Practical Training (7 cr)

- Various environments associated with elderly care

### *Literature / Study Material*

Same literature as in The Elderly and Their Family as Clients in Health Care Services.

### *Learning Methods*

- Laboratory work
- Clinical training
- Portfolio

### *Assessment*

- Preparation for and active participation in the lessons pertaining to the practical training
- Laboratory work and reflection on the training
- Completed and approved clinical training and on-the-job training
- Filling out the drug care card
- Portfolio

### *Prerequisites*

The Elderly and Their Family as Clients of Health Care Services (theory)

### *Languages of Instruction*

Finnish and the language used during international exchanges.

### *Further Information*

The required level of competence are the same as in the theoretical course, The Elderly and Their Family as Clients of Health Care Services.

## **Syventävät hoitotyön opinnot, 9 op KG09AIHE901 (study unit)**

### *Lecturers*

- Liisa Ahola, MSc (Nursing)
- Kristiina Vaahtera, MSc (Nursing)
- Paula Paussu, MNS
- Marjut Nummela, LSc
- Anna Saari, MSc (Nursing)
- Aija Risku, MNS

### *Objectives*

Ethical Competence Students will be competent in working in an ethical manner and behave appropriately when encountering people with a different ethnic background. They will also be competent in treating their colleagues fairly



and with respect. Competence in Promoting Health Students will be competent in promoting health as experts in nursing. Clinical and Developmental Competence Students will be competent in working according to evidence-based nursing principles. They will also be competent in critically evaluating nursing and developing quality in the profession. Students will know how to plan, implement and evaluate a patient's care together with the patient and his/her family members, and with multi-professional staff teams. They will have command of the common treatments given to patients and know how to carry them out safely and economically. Students will also have a comprehensive understanding of drug treatment. They will be able to work in different nursing situations constantly prioritising their actions in constantly changing situations. Students will be competent in working as co-ordinators of care and in counseling patients and their family members in the various stages of care.

### *Content*

- Areas of the nursing profession
- Special issues in medicine

### *Literature / Study Material*

Current learning material

### *Learning Methods*

- Student-oriented learning methods
- Portfolio

### *Assessment*

- Exams
- Assignments
- Self-evaluation
- Evaluation of performance
- Peer evaluation
- Portfolio

### *Prerequisites*

Compulsory nursing studies common to all students

### *Languages of Instruction*

Finnish and the language used during international exchanges

### *Further Information*

The core competences in the course include ethical competence, clinical competence, competence in development and competence in counseling.

## **Syventävä hoitotyön harjoittelu eriytyvillä alueilla, 18 op KG09AIHE902 (study unit)**

### *Lecturers*

- Liisa Ahola, MSc (Nursing)
- Kristiina Vaahtera, MSc (Nursing)
- Paula Paussu, MNS
- Marjut Nummela, LSc
- Aija Risku, MNS
- Anna Saari, MSc (Nursing)

### *Objectives*

Same objectives as for the Advanced Nursing studies.

### *Content*

- Training
- Seminar work
- Portfolio

### *Literature / Study Material*

Same literature and materials as for the Advanced Nursing studies.

### *Learning Methods*

- Training
- Seminar work
- Portfolio

#### *Assessment*

Approved training, assignments, and portfolio.

#### *Languages of Instruction*

Finnish and the language used in international exchanges.

#### *Further Information*

The core competences include those set for the Advanced Nursing studies.

## **Työelämäosaaminen, laadunhallinta ja yrittäjyys hoitotyössä, 8 op KG09AIHE701 (study unit)**

#### *Lecturers*

- Aija Risku, MNS
- Katriina Kuhalampi, MSc (Nursing)
- Annu Peltoniemi, PhD
- Kari Jokiranta, PhD
- Ritva Kuoppamäki, PhD

#### *Objectives*

Competence in Interaction and Entrepreneurship Students will be competent in developing their social and negotiation skills and have command of the social and negotiation skills needed in entrepreneurship and networking. They will have command of the principles of entrepreneurship. Ethical Competence Students will be competent in evaluating the values of an organisation and in identifying its business culture. Competence in Promoting Health and Organisational Competence Students will be competent in identifying the changes in the atmosphere of a work community and in developing well-being in the workplace using various measures. Competence in Decision-making Students will be competent in working as a responsible member of a work community and various networks, and be able to identify the phenomena associated with shared leadership. They will take responsibility in ensuring that their own work and the work of their team is cost-efficient. Students will be competent in critically monitoring their own actions and in working in expert communities. They will be able to apply the norms set forth in labour legislation and collective labour agreements to various situations in the workplace as an employee, superior and/or entrepreneur. Students will be competent in solving problems and making decisions. Competence in Development Students will be competent in acquiring and processing field-related information, and they will know how to evaluate information and perceive the overall picture of various phenomena. Students will be competent in perceiving R&D projects as environments for learning, and they will be familiar with the various areas of project work and know how to perform the duties associated with project work. Students will know how to take initiative and work independently, and to evaluate their own level of expertise and the expertise of others. They will be able to develop their own skills based on given feedback. Students will be competent in reporting and releasing information concerning areas of development.

#### *Content*

- Labour legislation
- Collective labour agreements
- Organisation cultures and values
- Occupational health and welfare
- Supervising subordinates
- Working on a team
- Areas of leadership and supervision
- Quality control in nursing
- Modelling processes and cost calculations
- Business ideas, business plans, and choosing the type of enterprise to establish

#### *Literature / Study Material*

- Laaksonen H: & al. 2005. Lähijohtamisen perusteet terveydenhuollossa. Edita.
- Meretniemi I: & Ylönen H: 2008. Yrityksen perustajan käsikirja. Otava.
- Scientific articles

#### *Learning Methods*

- Student-oriented learning methods
- Lectures
- Co-operative learning

- Online learning
- Portfolio

#### *Assessment*

- Exam
- Assignments
- Portfolio
- Self-evaluation
- Performance evaluation
- Peer evaluation

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Research and development: 8 cr
- Online studies: 2 cr

### **Hoitotieteellinen tutkimus ja hoitotyön kehittäminen, 7 op KG09AIHE702 (study unit)**

#### *Lecturers*

- Annu Peltoniemi, PhD
- Eija Kyrönlähti, PhD
- Helinä Mesiäislehto–Soukka, PhD
- Ritva Kuoppamäki, PhD
- Marjut Nummela, LSc
- Erna Nikkola, LSc

#### *Objectives*

Competence in Development Students will be competent in acquiring research information from various field-related sources in Finnish and foreign languages and in critically evaluating it as reliable. They will read academic articles and be competent in drawing conclusions about whether the information can be used in the field of nursing. Students will also be able to provide reasons for taking certain actions in treatment based on research. Students will be competent in developing nursing utilising various research methods.

#### *Content*

- Acquiring information from Finnish and foreign sources of information
- Research process
- Approaches to research
- Research methods
- Research plans
- Gathering data and methods of analysis
- Reliability of research and ethics
- Oral and written presentation of research
- Poster

#### *Learning Methods*

- Lectures
- Seminar work
- Portfolio

#### *Assessment*

- Exams
- Assignments
- Portfolio

#### *Prerequisites*

Theoretical Foundations of Nursing

#### *Languages of Instruction*

Finnish

### *Further Information*

Core competence: expertise in development

## **Project training, 3 op KG09AIHE704 (study unit)**

### *Lecturers*

- Katriina Kuhalampi, MSc (Nursing)
- Aija Risku, MNS

### *Objectives*

Students will be familiar with the various phases of project work and be competent in working according to a project plan and in compiling a final report.

### *Content*

- Projects as instruments in development
- Project plans
- Project training according personal plan

### *Literature / Study Material*

Ruuska K. 2007. Pidä projekti hallinnassa. Suunnittelu, menetelmät, vuorovaikutus. Talentum.

### *Learning Methods*

- Project plan
- Written report and presentation of it in a project seminar

### *Assessment*

Approved project plan and training

### *Languages of Instruction*

Finnish

### *Further Information*

Research and development: 3 cr

## **FINAL THESIS AND MATURITY TEST, 15 op KG09F (study entity)**

Kehittämisaosaaminen Opiskelija osaa valita työelämän esittämistä hoitotyön tai terveydenhoitotyön kehittämisaiheista aiheen, johon haluaa perehtyä ja tarkastella syvällisesti yhteistyössä työelämän edustajien kanssa opinnäytetyönään. Opiskelija osaa laatia opinnäytetyösuunnitelman, mikä täyttää siltä vaaditut kriteerit. Opiskelija osaa kerätä opinnäytetyönsä aineiston ja analysoida sen määrällisten tai laadullisten tai toiminnallisten menetelmien mukaan. Opiskelija osaa kirjoittaa tieteellisen kirjoittamisen ohjeiden mukaisen raportin opinnäytetyöstään. Opiskelija osaa esittää suullisesti opinnäytetyönsä sekä laatia siitä visuaalisesti ja sisällöllisesti selkeän posterin. Opiskelija osaa opponoida toisen opinnäytetyön kriteerien pohjalta koko opinnäytetyöprosessin eri vaiheissa. Opiskelija osaa vastaanottaa kriittistä arviointia omasta opinnäytetyöstään ja osaa käyttää arviointitietoa hyväkseen jatkotyöskentelyssään. Viestintäosaaminen Opiskelija osaa kirjoittaa opinnäytetyöstään kypsyysnäytteen, jossa arvioidaan sisällön hallinnan lisäksi aidinkielen hallinta. Competence in Development

- Students will be competent in choosing a topic for their final thesis related to nursing or health care, which they would like to study in depth in co-operation with representatives of the working world. Students will make a thesis plan, which fulfils set requirements and gather information and data and analyse it qualitatively or quantitatively. Students may also carry out their study as research. Students use academic-level language and conventions to write their thesis. Students will have an oral presentation of their thesis and make a poster of the main points of the thesis using illustrations and images to depict the content. Students will act as opponents to their fellow students according to set criteria during the entire thesis writing process. Students will possess the ability to listen to constructive criticism pertaining to their own thesis and be capable of using that knowledge in their future work/studies.

### *Competence in Communication*

- Students will be prepared to sit a Maturity Test, which will be graded according to their command of the topic they have studied in their thesis and to their command of their mother tongue.

## **FREE-CHOICE STUDIES, 6 op KG09D (study entity)**

### Lecturer(s)

- Expert lecturers in the field

### Objectives

- Students will increase their professional competence.

### Course contents

- Students may choose studies offered to nursing students specifically, or studies offered at the School of Healthcare and Social Work, at other schools within the Seinäjoki University of Applied Sciences or at other institutions of higher education. The length of the studies is 2–3 credits. Students will select studies that increase their professional skills and knowledge and register via the Internet and that take place in various institutions. The guidance counsellor is the contact person for Elective Studies at the School of Health Care and Social Work.

### Literature/study material

- Provided by each lecturer individually.

### Learning methods

- Students will be informed at the beginning of the course.

### Assessment

- Students will be informed at the beginning of the course.

# Degree Programme in Physiotherapy (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Health Care

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Teaching in the Degree Programme in Physiotherapy is based on problem-based learning (PBL). The pedagogic philosophy behind PBL involves the cognitive constructivist and experiential theories of learning whereby the learner acquires knowledge as a result of information processing, previous knowledge and by constantly obtaining and actively processing new experiences.

The experiences students will encounter in the working world support the use of the PBL teaching method. Since the working world is not divided into subjects as in the educational institution, students must learn to solve problems in the natural way, i.e. as they arise – they way they would at work. For this reason, single subjects in the curriculum are integrated into the themes to be studied, which are closely connected to issues concerning professional practices and the areas of expertise needed on the job, i.e. competences. Instead of being seen as the distribution of information, education is seen as the production of experiences and expertise.

More and more, the working world and expertise require that employees have skills in information acquisition and processing, the ability to collaborate with others, problem-solving skills, the ability to constantly learn new things and to integrate different types of information and disciplines into practical work. PBL allows students to analyse professional challenges together with their fellow students and teachers rather than merely trying to remember information. Students are seen as responsible, knowledge-seeking adults who take responsibility for their own learning and commit themselves to self-directed studying. It is the teacher's duty to function as the facilitator of learning and co-ordinator of the studies.

Learning involves work in small groups, lectures by experts, projects and practical training in the school and in real, working-world environments.

## PROFILE OF THE PROGRAMME

The Basic Studies concentrate on the foundations of physiotherapy, language studies and social skills. During the Professional Studies, students learn to evaluate and examine clients' ability to function, supporting that ability and healing apparent disorders. The Elective Professional Studies allow students to enhance their knowledge of a selected area of physiotherapy, e.g. physiotherapy for children, the working population or the aging. Students' skills in research and development in the field of physiotherapy ripen when they engage in their thesis writing process.

The programme also includes supervised practical training worth 75 credits in the areas of social welfare, health care and sports. Some of the practical training may also be done abroad. Previous studies must be completed before moving on to the next study modules.

## KEY LEARNING OUTCOMES

### *Competence in field-related examination and clinical inference*

A Bachelor of Health Care

- \* is able to examine and analyse abilities to function as well as limitations on the ability to function, especially with regard to physical ability.
- \* is able to make an evaluation and physiotherapy plan based on clinical inference together with the client and with consideration to his/her needs.
- \* is able to evaluate and monitor the results of physiotherapy.

### *Competence in instructing and advising*

A Bachelor of Health Care

- \* is able to utilise various methods for purposefully advising and instructing individuals or groups to maintain and promote the physical capacity.
- \* is able to utilise the principles of motoric learning/guiding when guiding clients/groups in their ability to function.
- \* is able to apply therapeutic practices in group counselling.
- \* is able to plan and nurture health and physical ability and plan and guide exercising that promotes physical ability.

### *Competence in therapy*

A Bachelor of Health Care

- \* is able to apply evidence-based information to answer to the needs of individual clients when making a plan for

physiotherapy.

- \* is able to empower clients and create a mutual, therapeutic relationship with them.
- \* is able to plan and implement therapeutic practices utilising information from the areas of pathophysiology, physiology of strain and neurophysiology and biomechanics.
- \* is able to utilise methods in physiotherapy to benefit from their physiological and therapeutic effects.
- \* is able to carry out manual therapy validly and appropriately.

#### *Collaborative and societal competence*

A Bachelor of Health Care

- \* is able to work independently, on multi-professional teams, in work groups and networks of experts, and service chains as experts in physical therapy.
- \* is able to actively influence society by developing and producing services that promote physical therapy and the ability to function while considering the national and international challenges to the fields of rehabilitation, sports, social welfare and health care.
- \* is able to make statements and write position papers.

#### *Competence in technology*

A Bachelor of Health Care

- \* is able to utilise technological opportunities in the planning, implementation and evaluation of physical therapy.
- \* is able to utilise technology to assess clients' ability to function.
- \* is able to utilise tools and the technology behind them to support clients' ability to function.
- \* is able to plan environments with unobstructed access together with people representing other professions.
- \* is able to utilise ergonomics to adapt the needs and characteristics of people to the work and living environment.

## OCCUPATIONAL PROFILES

Physiotherapists work as experts in evaluating, maintaining and healing of the physical functions of people of different ages, and they are responsible for independently planning, carrying out, evaluating and developing their work.

Physiotherapists collaborate with the doctor(s) responsible for the clients' treatment and work as specialists in their field on multi-professional rehabilitation teams. Keeping the population physically fit and able to work poses a challenge to physiotherapy work. Physiotherapists also strive to influence people's living and work environment.

Physiotherapists work in hospitals, health-care centres, research and treatment institutions, rehabilitation institutions, spas, occupational health-care services, public health organisations, sports organisations, organisations for the disabled, nursing homes, day-care centres, and schools. They may also be self-employed.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in physical therapy. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at FYSTER 2009 (1.9.2009), 210 cr

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of the degree programme: Ms Riitta Kiili, tel. +358 20 124 5179, e-mail: riitta.kiili@seamk.fi

Student counsellor: Ms Tellervo Pihlaja, tel. +358 20 124 5180, e-mail: tellervo.pihlaja@seamk.fi

ECTS departmental coordinator / International coordinator: Ms Helinä Mesiäislehto-Soukka, tel. +358 20 124 5170, e-mail: helina.mesiaislehto-soukka@seamk.fi

## Degree Programme in Physiotherapy (In Finnish) (1.9.2009) FYSTER 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KG10A	BASIC STUDIES					45

KG10AP01	Professional development in physiotherapy	x				4
KG10AP04	English	x				3
KG10AP05	Swedish	x				3
KG10AP03	Native language and communication	x				3
KG10AP06	First aid	x				2
KG10AP02	Studies in the University of Applied Sciences and in the degree Programme of Physiotherapy	x				7
KG10AP17	Physiotherapy as a part off the rehabilitation services	x				5
KG10AP18	The client in the health and social service	x				5
KG10APE1	Clinical orientate practice in physiotherapy profession	x				3
KG10AP09	Human movement and functioning	x				10
KG10B	<b>PROFESSIONAL STUDIES</b>					<b>142</b>
KG10BP01	Assesment and analyses of human mobility and function	x				11
KG10BP02	Support and guidance of human mobility and functioning		x			15
KG10BPE1	Entrepreneurship in health and social services	x				6
KG10BP03	Physiotherapy in adults		x			28
KG10BPE2	Clinical practice in adult physiotherapy		x			15
KG10BP04	Physiotherapy in childhood and adolescence			x		15
KG10BPE3	Clinical practice in physiotherapy of childhood and adolescence			x		9
KG10BP05	Physiotherapy in elders			x		15
KG10BPE4	Clinical practice in physiotherapy of elders			x		9
KG10BP06	Optional professional studies				x	5
KG10BPE5	Clinical practice in optional professional studies				x	10
KG10BP17	Transition to profession				x	4
KG10D	<b>ELECTIVE STUDIES</b>					<b>8</b>
KG10F	<b>FINAL THESIS AND MATURITY TEST</b>					<b>15</b>

## Study Descriptions

### BASIC STUDIES, 45 op KG10A (study entity)

The purpose of Basic Studies is to familiarise students with the work of a physiotherapist in the fields of social welfare, health care, and rehabilitation. Students will learn about the person as a physical, emotional and social being. Students will know how to identify and analyse human movement and activity.

### Professional development in physiotherapy, 4 op KG10AP01 (study unit)

#### Lecturers

- Pirkko Mäntykivi
- Riitta Kiili
- Pia Haapala
- Tellervo Pihlaja

#### Objectives

The students will

- evaluate their learning and development into physiotherapists by creating portfolios on their professional growth throughout their studies,
- enhance their personal professional development processes,



- prepare themselves for the demands of society and working life, and
- make use of the tutoring offered to them.

### *Content*

- Learning about physiotherapy as a profession and development into the profession
- Portfolio
- Professional ethics in physiotherapy
- Role of the Finnish Physiotherapy Association with regard to the students' professional growth
- Supervision

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Individual discussions about goals and development
- Lectures
- Group discussions
- Portfolio
- Online learning

### *Assessment*

Active participation in group and individual tutorials, portfolio

### *Languages of Instruction*

Finnish

## **English, 3 op KG10AP04 (study unit)**

### *Lecturers*

Mari Heinonen

### *Objectives*

Students will develop their oral and written communication skills, and they will be motivated to continue their language studies independently in the future.

### *Content*

- Revision of central structures and vocabulary
- English for health care services and physiotherapy
- Communication in English-speaking cultures
- Academic English

### *Literature / Study Material*

- Articles from the journals Physiotherapy and Physical Therapy
- Other material provided by the lecturer

### *Learning Methods*

- Lectures
- Pair and teamwork
- Tutorials in English

### *Assessment*

- Summary of a Finnish text into English
- Oral test

A language aptitude test is given before the course.

## **Swedish, 3 op KG10AP05 (study unit)**

### *Lecturers*

Jaana Store

### *Objectives*

Students will revise grammar, expand their vocabulary related to physiotherapy and health care services and advance their oral and written skills in Swedish.

### *Content*

- Revision of structures and vocabulary
- Swedish for health care services and physiotherapy
- Communication in the Swedish culture
- Academic Swedish

### *Literature / Study Material*

- Sjukgymnasten journal
- Other material provided by the lecturer

### *Learning Methods*

- Lectures
- Work in pairs and groups
- Tutorials in Swedish

### *Assessment*

- Summary of a Finnish text into Swedish
- Oral test in pairs

A language aptitude test will be given before the course.

## **Native language and communication, 3 op KG10AP03 (study unit)**

### *Lecturers*

Katariina Punkari

### *Objectives*

Students will

- learn purposeful communication required during studies and in the working world,
- gain an overall picture of the correct usage of Finnish,
- learn to understand the meaning of documentation in scientific communication and become familiar with various forms of documentation,
- become familiar with the features of various types of texts and their styles and with the foundation of scientific communication,
- learn to compile common documents,
- practise speaking, discussion and holding meetings and negotiations,
- learn to argue for their opinions and develop their thinking, and
- know what media literacy involves.

### *Content*

- Planning, implementing and evaluating oral communication
- Interaction, verbal and non-verbal communication, forms of illustrating information
- Meetings, negotiations and other oral communication
- Media texts, authors, interpretation
- Writing: planning, the writing process, final edition, documentation, standard lay-outs, informative texts, business letters, texts for meetings and negotiations
- Academic essays, reports, summaries, posters, learning and lecture journals

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Lectures
- Oral and written assignments
- Essays
- Exam or journal

### *Assessment*

- Active participation
- Completed assignments
- Exam
- Essay

### *Languages of Instruction*

Finnish

## **First aid, 2 op KG10AP06 (study unit)**

### *Lecturers*

Marja Toukola

### *Objectives*

Students will learn to recognize the need for immediate first-aid, know how to administer first-aid in demanding situations and become motivated to keep their skills and knowledge up-to-date.

### *Content*

First-aid for acute illnesses and accidents.

### *Literature / Study Material*

Students will be given a reading list.

### *Learning Methods*

Lectures, practice

### *Assessment*

Written and practical examination

### *Languages of Instruction*

Finnish

## **Studies in the University of Applied Sciences and in the degree Programme of Physiotherapy, 7 op KG10AP02 (study unit)**

### *Lecturers*

- Pia Haapala
- Tellervo Pihlaja
- Riitta Kiili
- Pirkko Mäntykivi
- Liisa Ketola
- Petri Keskinen
- Silja Saarikoski

### *Objectives*

The students will

- be introduced to their learning environment and studies in the university of applied sciences and the Degree Programme in Physiotherapy,
- get to know their fellow students as individuals and as group members,
- understand the life-long learning process and the holistic,
- be introduced to the theoretical foundation of learning and become prepared for problem-based learning (PBL),
- practice self-directed learning and learning in a group,
- learn to use information technology effectively to support their studies,
- be prepared for online learning,
- learn to use library and information services effectively, and
- be familiar with field-related sources of information and learn to search and apply the information independently.

### *Content*

- Students' role at the university of applied sciences
- Students' role in the degree programme and as a member of their class

- Learning theories, life-long learning and prerequisites for learning
- Problem-based learning
- Working with information and the tools needed to process information
- Communication and databases, Internet and online services, online learning
- Sources of information and acquiring information

#### *Literature / Study Material*

Students will receive a reading list.

#### *Learning Methods*

- Lectures
- Tutorials
- Independent study
- Assignments
- Seminar
- Online learning

#### *Assessment*

- Active participation in tutorials
- Field trips
- Assignments
- Written exam
- Seminar work and presentation of it

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Studying at the University of Applied Sciences, 1.5 cr
- Information Acquisition, 1.5 cr
- Information Technology, 2 cr
- Interaction and Collaborative Skills, 0.5 cr
- Science of Education, 1.5 cr

## **Physiotherapy as a part off the rehabilitation services, 5 op KG10AP17 (study unit)**

#### *Lecturers*

- Pirkko Mäntykivi
- Pia Haapala
- Merja Finne
- Minna Hautamäki
- Tarja Svahn

#### *Objectives*

Students will

- study the development of rehabilitation and the legislation that regulates it,
- examine rehabilitation as part of the activities in society,
- become familiar with the historical development of the physiotherapy profession and training,
- Legislation and central concepts in physiotherapy,
- Explore the role and responsibilities of physiotherapists in multi-professional teams in the fields of rehabilitation and health care and social services,
- study the physiotherapeutic process and the work of physiotherapists as part of rehabilitation,
- Learn to apply research results to their work,
- Learn to think critically, and
- study the concept of evidence-based physiotherapy.

#### *Content*

- History of rehabilitation
- Concept of rehabilitation and relevant legislation
- ICF in assessing ability to function, restrictions in functioning and health
- Areas of rehabilitation

- Rehabilitation schemes
- Multi-professionalism in rehabilitation,
- Physiotherapy in the rehabilitation process,
- History of physiotherapy
- Legislation and concepts in the work of physiotherapists,
- Introduction to research and development of physiotherapy and the research process

#### *Literature / Study Material*

Students will receive a reading list.

#### *Learning Methods*

- Lectures
- Tutorials
- Independent study
- Field trips

#### *Assessment*

Written exam

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Rehabilitation 1.5 cr
- Introduction to Physiotherapy 3 cr
- Basics in Research Methods 0.5 cr

## **The client in the health and social service, 5 op KG10AP18 (study unit)**

#### *Lecturers*

- Pia Haapala
- Kari Jokiranta
- Pirkko Mäntykivi
- Tarja Svahn

#### *Objectives*

Students will learn to view patients/clients as experts of their own lives and resources, study the rights of patients and the responsibilities of professionals as regulated by data protection and confidentiality legislation, become familiar with the Finnish health care and social service delivery system and the relevant regulations and health care and social policy programs, be introduced to various enterprises in the health care and social service sectors, explore factors that influence the health and functional capacity of the Finnish population and understand their significance in public health, and understand the role of the third sector as a complementary provider of health care and welfare services.

#### *Content*

The course comprises the following:

- Client-oriented approach to interaction
- Data protection legislation
- Health care and social service delivery system in Finland
- Public health
- Third sector / associations for the disabled

#### *Literature / Study Material*

Students will be given a reading list.

#### *Learning Methods*

- Lectures
- Tutorials
- Independent studies
- Field trips
- Seminars

*Assessment*  
Seminar work

*Languages of Instruction*  
Finnish

*Further Information*

- Social and Healthcare Services in Finland 2.5 cr
- Psychology 0.5 cr
- Public Health Science 1.5 cr
- Science of Education 0.5 cr

## **Clinical orientate practice in physiotherapy profession, 3 op KG10APE1 (study unit)**

*Lecturers*  
Minna Hautamäki

*Objectives*  
Students will understand the functions of the health care and social service system in practice, be introduced to the work of physiotherapists, explore a case study to learn what the dynamic physiotherapy process with the patient/client involves, study documentation practices, observe how ethical principles are visible in physiotherapy, and participate in assisting ward patients/clients with exercise and daily activities.

*Learning Methods*  
Practical training

*Assessment*

- Journal based on themes as part of a portfolio
- Writing assignments pertaining to the achievement of set aims
- Group discussion on the themes of the journal at the end of the course

*Prerequisites*

- Physiotherapy as a part of rehabilitation services, the client in health care and social services

*Languages of Instruction*  
Finnish

## **Human movement and functioning, 10 op KG10AP09 (study unit)**

*Lecturers*

- Riitta Kiili
- Tarja Svahn
- Pia Haapala
- Minna Hautamäki
- Pirkko Mäntykivi
- An expert in anatomy

*Objectives*  
Students will

- be introduced to the life–span perspective,
- study the human body, its systems and vital functions and factors regulating those functions,
- learn the basics of the nervous system, its functions and significance to human activity,
- study the components of physical fitness and how they are physiologically affected by stress,
- learn about central mental processes and their role in behaviour,
- become aware of their own bodies and the influence of feelings on their bodily functions,
- learn to assess aerobic endurance,
- learn the basic structure of the muscle, the function of the neuromuscular system and the basics of muscular control and the mechanisms of movement, and
- learn how the environment and interactive relationships affect human functions and well–being.

*Content*

- Human development and life span
- Human anatomy and physiology
- Impact of stress on the components of physical fitness and bodily systems
- Instruments for assessing aerobic endurance
- Sensory functions
- Structure and function of the central nervous system
- Classification and regulation of movements
- Neuromuscular system and its functions
- Arousal, emotions, motivation, personality, and mental self-regulation
- Body image, feelings and bodily functions
- Factors promoting human functions, health and well-being

#### *Literature / Study Material*

Students will receive a reading list.

#### *Learning Methods*

- Tutorials
- Lectures
- Exercises
- Seminars
- Online learning

#### *Assessment*

- Written exams (home exam)
- Seminar assignment
- Reports

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Anatomy and Physiology, 3 cr
- Psychology, 1 cr
- Biomechanics, 2cr
- Stress Physiology, 2 cr
- Examination of Patients/Clients, 2 cr

## **PROFESSIONAL STUDIES, 142 op KG10B (study entity)**

The Professional Studies provide students with the readiness to support and guide people's normal movement and ability to function, as well as to prevent and remedy motor disorders of people of all ages using physiotherapeutic methods. Students will develop their social and professional skills through theoretical studies and practical training. They will learn to assess their work and the activities of the work community. Students will also receive tools for developing the field of physiotherapy.

## **Assessment and analyses of human mobility and function, 11 op KG10BP01 (study unit)**

#### *Lecturers*

- Tarja Svahn
- Merja Finne
- Pirkko Mäntykivi
- Minna Hautamäki
- Expert in anatomy

#### *Objectives*

The students will

- understand how physiotherapeutic assessment is part of the physiotherapy process,
- become familiar with the structure and function of the musculoskeletal system,
- learn reliable, valid data collection techniques involving human positions, motion and basic movements,
- learn to assess muscle strength and joint mobility, and
- be introduced to research methods in physiotherapy.

## *Content*

- Physiotherapy process of the patient/client
- Anatomy of the musculoskeletal system
- Data collection methods, selecting methods, reliability and validity in physiotherapeutic assessment
- Examining posture
- Instruments for assessing functional capacity
- Muscle testing
- Testing joint mobility
- Analysing basic movement and gait
- Scientific research in physiotherapy (experimental studies, case studies and action research)

## *Literature / Study Material*

Students will receive a reading list.

## *Learning Methods*

- Lectures
- Tutorials
- Independent study
- Exercises
- Seminars
- Online learning

## *Assessment*

- Theoretical and practical exams
- Reports
- Analysis assignment

## *Prerequisites*

Human Motion and Function

## *Languages of Instruction*

Finnish

## *Further Information*

- Biomechanics, 2 cr
- Anatomy of the Musculoskeletal System, 4.5 cr
- Examination of the Patient/Client, 3.5 cr
- Introduction to Research Methods, 1 cr

## **Support and guidance of human mobility and functioning, 15 op KG10BP02 (study unit)**

### *Lecturers*

- Pia Haapala
- Merja Finne
- Tarja Svahn
- Minna Hautamäki
- Pirkko Mäntykivi

### *Objectives*

The students will

- practice the planning, implementation, evaluation and documentation of physiotherapy,
- be familiar with concepts associated with motor learning and the didactics of exercise and know how to guide individuals and groups in various situations according to the principles of motor learning and exercise didactics,
- know how to advise clients on a healthy lifestyle and how to devise purposeful exercise programs,
- learn to supervise basic movements and therapeutic training while supporting the clients' motor learning,
- use basic massage techniques and learn to mobilize and stabilize joints of limbs purposefully and safely, and
- use various relaxation techniques to reduce muscle tension and tension in general.

## *Content*



- Dynamic physiotherapy processes and documentation
- Motor learning
- Client counselling and health care counselling
- Principles of supervising individuals and groups, and planning and implementing purposeful exercise programs
- Health-enhancing exercise and supervising clients through various means
- Nutrition as a part of health promotion
- Therapeutic training, PNF, LHT
- Basics of massage
- Mobilization and stabilization of joints and spine through various means
- Relaxation techniques
- Pool therapy

#### *Literature / Study Material*

Students will receive a reading list.

#### *Learning Methods*

- Lectures
- Tutorials
- Independent study
- Exercises
- Project learning
- Seminars
- Online learning

#### *Assessment*

Theoretical and practical exams, project/seminar assignments

#### *Prerequisites*

- Human Motion and Function
- Observation and Analysis of Human Motion and Function

#### *Languages of Instruction*

Finnish

#### *Further Information*

- Science of Education and Motor Learning, 1.5 cr
- Exercise Didactics, 1.5 cr
- Biomechanics, 1 cr
- Therapeutic Training, 4 cr
- Manual Therapy, 5 cr
- Health Promotion, 2 cr

## **Entrepreneurship in health and social services, 6 op KG10BPE1 (study unit)**

#### *Lecturers*

Minna Hautamäki

#### *Objectives*

Students will be aware of the distinctive features of independent, internal and external entrepreneurship and understand the significance of those features in their professional operations. Students will be competent in identifying the special features of entrepreneurship in the field of social welfare and health care, e.g. ethical demands on entrepreneurship and activities subject to authorisation. They will be familiar with the legislation regulating businesses in the physical therapy field and with the types of businesses, establishment, marketing, quality control, accounting, etc. of an enterprise. They will be introduced to these issues both in theory and in practice. Students will be required to create a business plan for their own business idea.

#### *Content*

- Independent, internal and external entrepreneurship
- Entrepreneurship in a service providing organisation
- Legislation regulating business activities
- Activities in a physical therapy enterprise
- Establishing a business that provides social welfare and health care services

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Studies in theory during lectures, field trips, and online learning in the Moodle environment
- Part of the course is completed in social welfare and health care enterprises where students learn about managing a business in practice
- Development of a professional point of view about the work of a physical therapist and familiarisation with an enterprise's physical therapy activities
- Practising the skills learned during first-year studies

### *Assessment*

- Assignments in Moodle
- Approved practical training in a social welfare and health care enterprise

### *Languages of Instruction*

Finnish

## **Physiotherapy in adults, 28 op KG10BP03 (study unit)**

### *Lecturers*

- Tarja Svahn
- Merja Finne
- Pia Haapala
- Riitta Kiili
- Kari Jokiranta
- Pirkko Mäntykivi
- Minna Hautamäki
- Experts in anatomy and medicine

### *Objectives*

Students will

- apply evidence-based knowledge when studying adult physiotherapy,
- supervise exercise groups for clients with special needs,
- learn to identify health-enhancing and health-jeopardizing factors related to the lives, exercise habits, work capacity and functions of adults in their working age,
- study common disorders, disabilities and illnesses in people of the working age,
- apply a diverse range of examination techniques when assessing the work capacity and functioning of adults and learn to make conclusions on the basis of the results,
- practice the planning, implementation and evaluation of the adult physiotherapy process,
- be introduced to the principles of quantitative and qualitative research, gain experience in the application and analysis of qualitative research findings and learn to read various research articles.

### *Content*

- Planning and supervising exercise programs to maintain and promote work capacity
- Exercise for special-needs clients
- Pain and controlling pain through physiotherapy
- Physical therapy
- Disorders of the musculoskeletal system and physiotherapy (including sports injuries)
- Pre- and post-operative physiotherapy for surgical patients
- Disorders of the respiratory and circulatory systems and physiotherapy
- Autoimmune illnesses (DM, cancer)
- Mental disorders and physiotherapy
- Occupational physiotherapy
- Aids for daily activities and mobility
- R&D activities

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Lectures
- Tutorials
- Exercises
- Independent study
- Project work
- R&D activities
- Online learning

#### *Assessment*

- Written and practical exams
- Project report
- R&D activities

#### *Further Information*

- Physiotherapy, 10 cr
- Physiotherapeutic Assessment, 4.5 cr (body image, pain, physical capacity)
- Physical Therapy, 3 cr
- Surgery and Traumatology, 1.5 cr
- Musculoskeletal Disorders, 1.5 cr
- Internal Disorders and Psychiatry, 1.5 cr
- Sports Injuries, 1.5 cr
- Neuroanatomy, 0.5 cr
- Principles of Research Methods, 1 cr
- Applied Exercise, 1.5 cr
- Adaptive Aids, 0.5 cr
- R&D activities, 1 op

### **Clinical practice in adult physiotherapy, 15 op KG10BPE2 (study unit)**

#### *Lecturers*

- Pia Haapala
- Riitta Kiili
- Minna Hautamäki
- Tarja Svahn
- Pirkko Mäntykivi

#### *Objectives*

Students will

- practise the assessment of the working population to learn to detect dysfunction,
- learn to plan and use various tools in physiotherapy to maintain and promote functional capacity and to evaluate their actions in individual and group therapy,
- gain further practice in therapeutic training to be able to evaluate the appropriateness of set exercises and, if necessary, to choose a different approach,
- advance their skills in collaborating and interacting with patients, families and other staff members,
- learn to use various techniques for acquiring information, and
- pay attention to ergonomics in all areas of their work.

#### *Learning Methods*

- Practical training in the working world + report
- Online learning

#### *Assessment*

- Thematic journal as part of a portfolio
- Writing assignments on the achievement of objectives
- Feedback from the clinical supervisor and physiotherapy teacher
- Group discussion at the end of the course based on the themes in the journal

#### *Prerequisites*

Adult Physiotherapy

*Languages of Instruction*  
Finnish

## **Physiotherapy in childhood and adolescence, 15 op KG10BP04 (study unit)**

### *Lecturers*

- Minna Hautamäki
- Merja Finne
- Pia Haapala
- Kari Jokiranta
- Pirkko Mäntykivi
- Tarja Svahn
- Experts in anatomy and medicine

### *Objectives*

The students will

- learn to apply evidence-based knowledge in child and adolescent physiotherapy,
- study the growth and development stages in children and adolescents,
- learn how to approach children and adolescents and learn to observe and analyse their motion and functioning,
- understand the importance of interaction and physical exercise to the overall development of children and adolescents,
- learn to supervise children's play and exercise individually and in groups,
- study common disorders in movement and functioning in children and adolescents,
- learn to apply various forms of exercise with special-needs clients,
- become familiar with the possibilities offered by physiotherapy in the maintenance and improvement of functional capacity in children and adolescents,
- learn to plan, implement and evaluate physiotherapy while considering the needs and resources of the families,
- gain further knowledge of rehabilitation by studying the multi-professional rehabilitation process of disabled children, and
- become better qualified for project work, quantitative and qualitative research and its analysis and for reading academic articles.

### *Content*

- Growth and development of children and adolescents
- Approaching children and adolescents and analysing and assessing their ability to function in various situations
- Actions supporting the growth and development of children and adolescents
- Health counselling for families in various life situations
- Supervising play and exercise
- Disorders of the nervous system and physiotherapy
- Disorders of the musculoskeletal system and physiotherapy
- Disorders of the respiratory and circulatory system and physiotherapy
- Mental disorders and physiotherapy
- Aids for disabled children
- Quantitative research and statistical methods
- R&D activities

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Lectures
- Tutorials
- Independent study
- Exercises
- Project work
- Field trips
- Seminars
- R&D activities
- Online learning

### *Assessment*

- Written exams

- Seminar work
- Approved practical exercises in the supervision of clients
- Project work
- R&D activities

*Languages of Instruction*  
Finnish

*Further Information*

- Physiotherapy, 7 cr
- Social Policy, 0.5 cr
- Medical Science, 1 cr
- Sport Didactics, 1 cr
- Motor Learning, 0.5 cr
- Rehabilitation: 0.5 cr
- Applied Exercise, 1.5 cr
- Introduction to Research Methods, 2 cr
- R&D activities, 1 cr

## **Clinical practice in physiotherapy of childhood and adolescence, 9 op KG10BPE3 (study unit)**

*Lecturers*

- Pia Haapala
- Minna Hautamäki
- Merja Finne
- Tarja Svahn
- Pirkko Mäntykivi

*Objectives*

The students will

- gain further knowledge and skills in the observation and analysis of the psychomotor development in children and adolescents,
- learn to determine disorders in the mobility and functional capacity of children and adolescents, to plan and apply physiotherapy techniques for maintaining and promoting the functional capacity of children and adolescents and to evaluate their own actions critically,

*Content*

- Improving skills in collaborating and interacting with children and adolescents, their parents and other staff members
- Making use of the available techniques for acquiring information when faced with new situations

*Learning Methods*

Practical training in the working world + report, online learning

*Assessment*

- Thematic journal as part of a portfolio
- Writing assignments on the achievement of objectives
- Feedback from the clinical supervisor and physiotherapy teacher
- Group discussion at the end of the course based on the journal's themes

*Prerequisites*

Child and Adolescent Physiotherapy

*Languages of Instruction*  
Finnish

## **Physiotherapy in elders, 15 op KG10BP05 (study unit)**

*Lecturers*

- Riitta Kiili

- Pia Haapala
- Pirkko Mäntykivi
- Ilkka Loukola
- Medical experts

### *Objectives*

The students will

- learn what physical, mental and social changes aging entails,
- learn to identify health–promoting and health–jeopardizing factors in the lives of the elderly population,
- learn to identify the effects of neurological diseases on the aging clients' functional capacity
- study the effects of physical exercise on the aging body,
- study the disorders, disabilities and illnesses in various bodily systems in older people and learn about the effect of relevant medication,
- understand problems caused by pain and illness in the lives of older clients,
- learn to apply a number of techniques to assess the functional capacity and independent coping of aging clients,
- learn to plan, implement and evaluate physiotherapy for aging clients,
- study what assistive technology or aids can be used to promote the functional capacity of elderly clients to be able to give advice on the choice, purchase, use and maintenance of aids, and
- be able to make an expert contribution to rehabilitation teams and to teams planning public facilities and housing for the elderly population,
- enhance their knowledge of rehabilitation by familiarising themselves with the multi–professional rehabilitation process, and
- learn how to work in projects, carry out and analyse qualitative research, and become adept in reading academic articles.

### *Content*

- Physical, mental and social changes throughout people's life span
- Effects of neurological diseases on the functional capacity of aging clients
- Health promotion and aging
- Physical exercise for aging clients
- Promotion of motor skills through various sensory channels
- Physiotherapy and the effects of medication
- Effects of the impaired function of the cardiovascular, respiratory, musculoskeletal, sensory and neuromuscular systems on elderly clients' functional capacity
- Tools for assessing the functional capacity and independent coping of elderly clients
- Physiotherapeutic techniques in the alleviation of pain and promotion of functional capacity
- Aids and modifications in the housing/living environment of elderly people
- Qualitative research
- Project work
- R&D activities

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Lectures
- Tutorials
- Exercises
- Independent study
- Seminars
- R&D activities
- Online learning

### *Assessment*

- Written exams
- Seminar work
- R&D activities

### *Prerequisites*

- Adult Physiotherapy
- Child and Adolescent Physiotherapy

### *Languages of Instruction*

Finnish

### *Further Information*

- Physiotherapy, 7 cr
- Designing an Environment for Functioning, 2 cr
- Adaptive Aids, 0.5 cr
- Neurology, 1.5 cr
- Gerontology and Geriatrics, 1.5 cr
- Applied Exercise, 1.5 cr
- R&D activities: 1 cr

## **Clinical practice in physiotherapy of elders, 9 op KG10BPE4 (study unit)**

### *Lecturers*

- Pia Haapala
- Riitta Kiili
- Pirkko Mäntykivi

### *Objectives*

The students will

- examine and assess the functional capacity of the elderly population and identify disorders in the patient's/client's functional capacity,
- plan and apply various physiotherapy techniques to maintain and promote the clients'/patients' functional capacity paying special attention to the elderly client's home and environment,
- advance their skills in collaborating and interacting with patients, families and other staff members, and
- use various techniques for acquiring information.

### *Learning Methods*

- Practical training in the working world + report
- Online learning

### *Assessment*

- Thematic journal as part of a portfolio
- Writing assignments on the achievement of objectives
- Feedback from the clinical supervisor and physiotherapy teacher
- Group discussion at the end of the course based on the journal's themes

### *Prerequisites*

Physiotherapy for the Elderly

### *Languages of Instruction*

Finnish

## **Optional professional studies, 5 op KG10BP06 (study unit)**

### *Lecturers*

Merja Finne and Minna Hautamäki

### *Objectives*

Students will become familiar with the theoretical foundation and practical applications of their line of specialisation in physical therapy. They will also be introduced to patient administration, learn the objectives and components of human resources management, study the development of the work community and the principles of quality assurance.

### *Content*

The topics discussed in the course include theoretical underpinning and practical applications of the line of specialisation in physiotherapy chosen by the student, efficiency and management in service organisations, the objectives and components of human resources management, and staff and work community development.

### *Literature / Study Material*

As chosen by the student and lecturer.

### *Learning Methods*

- Tutorials
- Independent study
- Lectures
- Seminars
- Online learning

#### *Assessment*

- Written exam
- Seminar work

#### *Prerequisites*

- Adult Physiotherapy
- Child and Adolescent Physiotherapy
- Physiotherapy for the Elderly

#### *Languages of Instruction*

Finnish

### **Clinical practice in optional professional studies, 10 op KG10BPE5 (study unit)**

#### *Lecturers*

Merja Finne and Minna Hautamäki

#### *Objectives*

Students will gain a profound understanding of the theoretical and practical foundations of their chosen area of physical therapy. They will engage in practical training in a workplace of their choice.

#### *Content*

Students will actively contribute to the choice of the practical training placement. The placement can be situated outside the Seinäjoki Hospital District, if no suitable placement is available in this area or if the practical training period is essential for future employment.

#### *Learning Methods*

- Practical training in a place chosen by the student
- Administrative development project in the practical training workplace
- Written report about the practical training
- Online learning

#### *Assessment*

- Thematic journal as part of a portfolio
- Writing assignments pertaining to the achievement of set objectives
- Feedback from the clinical supervisor and physiotherapy teacher
- Group discussion at the end of the course based on the journal's themes

#### *Prerequisites*

Elective Professional Studies

#### *Languages of Instruction*

Finnish

### **Transition to profession, 4 op KG10BP17 (study unit)**

#### *Lecturers*

- Minna Hautamäki
- Merja Finne
- Kari Jokiranta
- Other experts

#### *Objectives*

The students will



- be introduced to labour legislation,
- study collective labour agreements and terms of employment in their own field,
- understand the role of labour market organisations in Finnish society,
- learn to market their expertise and qualifications,
- learn to provide physiotherapy services, and
- understand the meaning of internationalisation and learn to work as physiotherapy professionals in an increasingly international environment, both in Finland and in other countries.

### *Content*

- Labour legislation
- Municipal labour agreements
- Labour market organisations and how they work
- Curriculum vitae and job applications
- Development trends and international collaboration in physiotherapy
- Physiotherapy education in other countries
- National and international physiotherapy organisations
- Project studies

### *Literature / Study Material*

Students will receive a reading list.

### *Learning Methods*

- Online learning
- Lectures
- Tutorials
- Independent study
- Project studies

### *Assessment*

- Completion of online assignments
- Exam
- Seminar assignment

### *Languages of Instruction*

Finnish

### *Further Information*

- Introduction to the Working World, 1.5 cr
- International Studies, 1.5 cr
- Project Studies, 1 cr

## **ELECTIVE STUDIES, 8 op KG10D (study entity)**

- Lecturer(s): Physiotherapy teachers and various experts
- Objectives: The Elective Studies must fulfill the criteria set for university of applied sciences studies, and advance students' professional qualifications. Elective Studies also involve practical training. Students may choose elective courses from any of the faculties/units at the Seinäjoki University of Applied Sciences, as well as at other institutions of higher education. Using an internal (School of Healthcare and Social Work) or external menu on the Internet, students select courses that promote their professional knowledge and skills. The courses are organised in the faculties where the students have selected their courses. For further information, students may contact the guidance counsellors.

## **FINAL THESIS AND MATURITY TEST, 15 op KG10F (study entity)**

- Lecturer(s): Merja Finne, Pia Haapala, Minna Hautamäki, Riitta Kiili, Pirkko Mäntykivi, and Tarja Svahn
- Objectives and course contents: Students will apply information-seeking techniques independently and critically, demonstrating a research-minded approach. They will integrate theoretical knowledge and skills to benefit the working world. They will be prepared to participate in research and development projects and know how to apply research findings in the development of their future profession. Students will sit a Maturity Test to demonstrate that they master the contents of their final thesis and are capable of expressing themselves in appropriate style in their native language. The final thesis requires both independent work and active participation in individual/group tutorials and seminars. Students are expected to produce a plan and a research

report in writing.

# Degree Programme in SME Business Management (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Business Administration

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Teaching and learning in the programme involves extensive teamwork together with long-term business partners. Students complete several comprehensive assignments for the partner companies, which enables them to perceive the links between the various areas of business right from the beginning of their academic career.

Working with partner companies and engaging in teamwork support the development of students' professional expertise and their social and mental growth into SME business managers or mature entrepreneurs. The pedagogy applied in the programme emphasises the development of readiness for the working world while studying. The period of internationalisation increases students' language skills and supports their personal growth into an independent decision-maker.

More and more, the management of business calls for skills in information acquisition and processing, ability to work in collaboration with others, problem-solving skills, constant openness to learning new things, and the ability to combine various types of information in practical work. Teaching in the Degree Programme in SME Business Management emphasises the constructivist theory of learning whereby the active role of the student and his/her world of experience play an important part in the teaching and learning process. It is the teacher's duty to act as a facilitator of learning and co-ordinator of studies.

### *International activities*

During their third year of study, students usually spend one semester in a foreign institution of higher education where they complete 15 to 30 credits of coursework. There is a broad network of institutions in Europe, America, Australia and Asia from which students may choose the area that best suits their interests. Students may also apply to a higher education institution not included in the network.

Students in the degree programme have the opportunity to obtain a double degree: a UAS degree in business at Seinäjoki University of Applied Sciences and a BBA in the Hannover University of Applied Sciences and Arts. To receive the double degree, students complete three years of study in the Degree Programme in SME Business Management at Seinäjoki University of Applied Sciences and one year in Hannover. Students write their final thesis in English for which there are two thesis supervisors. Students do their practical training in Germany or some other foreign country.

Students who do not wish to complete a double degree may also do their practical training abroad. Moreover, there are courses taught in English available and visits by exchange students and foreign guest lecturers, all of which promote the internationalisation of the students.

### *Entrepreneurship*

The Kauppiasyrittäjyyspolku ("path to entrepreneurship") is a programme developed in collaboration with the Kesko retailing conglomerate, which trains participants to be shopkeepers for Kesko retail shops. The programme provides those interested in retail the opportunity to gain profound knowledge about retail sales and entrepreneurship. The module comprises online courses and can be supplemented with practical training in the field and a final thesis, if a participant wishes to complete the entire Kauppiasyrittäjyyspolku Module.

## PROFILE OF THE PROGRAMME

The studies in the programme emphasise problem-solving skills and learning by doing. The point of view taken in the programme is that of a generalist, e.g. the manager of a company. Therefore, teaching emphasises the development of students' ability to see the whole picture and competence in managing multidimensional entities. Strong ties to the global environment are also a distinctive characteristic of the programme. Globalising business calls for good language skills and the ability to work successfully in a multicultural environment.

### *Studies in the degree programme*

Students complete a total of 60 credits of coursework each year. The total amount of credits for the entire degree programme is 210, which takes about 3.5 years to complete. The programme comprises Basic Studies and Professional Studies, language studies, internationalisation studies, and studies in entrepreneurship as agreed upon, practical training, elective studies as outlined in the Personal Study Plan, and the final thesis.

The studies in the degree programme involve entrepreneurship, leadership, marketing, industrial management, corporate law, and international business. Students also study communications, data processing, project management and languages to enhance their expertise in business. Some of the studies can be completed through customised projects ("educational projects") in a partner company or on a team.

Students outline their area of expertise in SME business management in their Personal Study Plan. During their second year of studies, students delineate their career plan and create a personal study programme according to their plans. Students may specialise in marketing, online business, production planning, or service development. If a student plans to run a business immediately after graduation, then the necessary studies (s)he should engage in are included in their study plan.

## KEY LEARNING OUTCOMES

### *Competence in entrepreneurship*

A Bachelor of Business Administration

- \* is able to recognise and analyse opportunities and challenges in business and the business environment and to develop a new or existing business and the operations therein based on acquired knowledge.
- \* understands the significance of defining the strategy of an SME, compiling a business plan and a financial plan and of managing networks.
- \* knows the essential tasks and procedures associated with financial and industrial management and understanding of the significance of marketing to an SME as well as the procedures used in marketing.
- \* has social skills needed in working as an entrepreneur and managing responsible positions in an SME, e.g. skills in collaboration and presentation, is able to withstand stress and able to seize opportunities.

### *International competence*

A Bachelor of Business Administration

- \* has skills in two or three languages needed in managing a company and in developing one's work.
- \* is able to acknowledge and accept different cultures and to collaborate with people of different ethnic backgrounds.
- \* understands the opportunities and challenges in global development, especially with regard to the future development of a company.
- \* is able to utilise international sources of information.
- \* is able to function in a company going global and to develop one's international know-how to meet the needs of one's profession.

### *Extensive competence in business management*

A Bachelor of Business Administration

- \* is able to identify and describe an enterprise's essential processes and understands the impact the different areas of business have on each other.
- \* understands the interaction between an enterprise's activities and the business environment, and is able to adopt an entrepreneurial way of working.
- \* understands the principles of profitable business operations and is able to analyse an enterprise's activities and risks.
- \* understands the impact an individual has on the work community and is able to work efficiently.
- \* understands the significance of communication and is able to actively create interactive relationships between both internal and external interest groups, in the global business environment as well.

### *Competence in business methodology*

A Bachelor of Business Administration

- \* commands the research and development principles needed to acquire and espouse advanced expertise in business management.
- \* is able to utilise business mathematics and statistics and the necessary computer programmes.
- \* knows qualitative and quantitative research methods and how to apply them to research.

### *Competence in applied business management*

A Bachelor of Business Administration

- \* is able to apply business theories and to engage in creative problem solving, e.g. during one's practical training, Project Studies, and thesis writing process.
- \* is able to search for and apply the latest information in business to the work community.
- \* is able to develop business processes and apply quality-based thinking in one's work and in the supervision of others.

## OCCUPATIONAL PROFILES

The Degree Programme in SME Business Management prepares students for responsible job positions in the field of business with special emphasis on management and entrepreneurship in small- and mid-sized enterprises (SMEs). Bachelors of business administration are professionals in managing businesses, have the knowledge and skills needed to establish their own enterprise or to develop an existing enterprise in a global operations environment. There are a number of job positions available to students graduating from the programme, e.g. entrepreneur, managing director, director of development, logistics foreman, investment manager, marketing designer, etc.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to a university of applied sciences' master's degree programme in social sciences, business and administration. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at PK 2009 (1.9.2009), 210 cr

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of the degree programme: Ms Anmari Viljamaa, tel. +358 40 830 2397, e-mail: anmari.viljamaa@seamk.fi

ECTS departmental coordinator / International coordinator: Ms Marjo Arola, tel. +358 40 830 4216, e-mail: marjo.arola@seamk.fi

Student counsellor: Ms Raija Rauma, tel. +358 40 830 4214, e-mail: raija.rauma@seamk.fi

## Degree Programme in SME Business Management (In Finnish) (1.9.2009) PK 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
EPERUS	<b>BASIC STUDIES</b>					<b>30</b>
KE16A081100	Introduction to business management	x				9
KE16A081110	Introduction to economics	x				2
KE16A081120	Business mathematics	x				3
KE16A081130	Introduction to information technology	x				3
KE16A081140	Learning skills	x				2
KE16A081150	Communication in business	x				5
KE16A081160	Ecology and consumer behaviour	x				6
EYAMMATTIOP	<b>COMMON PROFESSIONAL STUDIES</b>					<b>57</b>
KE16B082100	Project planning	x				3
KE16B082110	Accounting and financial management	x				9
KE16B082120	International business (In English)	x				9
KE16B082130	Research and analysis		x			6
KE16B082140	Entrepreneurial business management		x			12
KE16B082150	Leadership	x				9
KE16B082160	Business law	x				9
EVAMMATTIOP	<b>PRIMARY OPTIONAL COURSES</b>					<b>15</b>
KE16C082200	Quality management (In English)	x				3
KE16C082210	Marketing communication	x				3
KE16C082230	Project management	x				3
KE16C082240	SME networking (In English)	x				3
KE16C092250	Services management and marketing	x				3

KE16C083100	Logistics (In English)	x	3
KE16C083301	Project game (In English)	x	3
EKIELIOP	<b>LANGUAGE STUDIES</b>		<b>18</b>
KEENGLANTI	<b>ENGLISH</b>		<b>6</b>
KE16A094100	Business English	x	3
KE16A094110	Business communication	x	3
KE16D084600	English, preparatory study unit	x	
KERUOTSI	<b>SWEDISH</b>		<b>6</b>
KE16A094200	Business Swedish	x	3
KE16A094210	Swedish business communication	x	3
KE16D084500	Swedish, preparatory study unit	x	
KESAKSA	<b>GERMAN</b>		
KE16C084301	German 1	x	3
KE16C084311	German 2	x	3
KE16C084321	Business German	x	3
KE16C084331	German business communication	x	3
KEVENAJA	<b>RUSSIAN</b>		
KE16C084401	Russian 1	x	3
KE16C084411	Russian 2	x	3
EHOPSMUK	<b>STUDIES TO PERSONAL LEARNING PLAN</b>		<b>30</b>
EKANVÄLIST	<b>Internationalization</b>		
KE16D085100	Studies abroad	x	30
KE16D085110	Gateway	x	
EYRITTÄJYYS	<b>Entrepreneurship</b>		
KE16D085130	A project for business	x	
KE16D085140	Other studies	x	30
EERIKOIST	<b>PERSONAL SPECIALIZATION</b>		<b>15</b>
KE16D085150	Other studies	x	15
ETYÖHA	<b>PRACTICAL TRAINING</b>		<b>30</b>
KE16E086100	Practical training	x	30
EOPINNÄ	<b>BACHELOR'S THESIS</b>		<b>15</b>
KE16F087100	Thesis	x	15
EVAPVALIT	<b>FREE CHOICE STUDIES</b>		
KE16D096100	Free choice studies, Seinäjoki UAS		
KE16D096110	Practical project in guerilla marketing	x	3

## Study Descriptions

### BASIC STUDIES, 30 op EPERUS (study entity)

Basic Studies develop the capabilities needed in the degree programme and support the students' Professional Studies later. The courses included in Basic Studies also enable students to develop an overall understanding of their professional field.

## **Introduction to business management, 9 op KE16A081100 (study unit)**

### *Lecturers*

- Tero Turunen, MA
- Jorma Imppola, MSc (Eng.)
- Kimmo Kulmala, MSc (Econ.), MA

### *Objectives*

After completing the course, students will understand the significance of business in society and entrepreneurship. They will be familiar with the concepts of commerce, marketing, and production and understand the relationships between the various functions in a business. Students will have command of the basic tools used in business planning and management and possess a comprehensive understanding of business. They will be aware of the interdependency of a company and its interest groups and be able to evaluate the relationship of a single company to its operational environment.

### *Content*

#### Entrepreneurship and business

- Significance of entrepreneurship and business to society and the economy, entrepreneurial atmosphere, internal entrepreneurship
- Methods in the EU and Finland to promote entrepreneurship
- Areas of a company's operations
- Business ideas, innovations, establishing a business, tangible and intangible resources
- Planning and managing a business, SWOT, PESTE
- Types of company organisations (e.g. franchising, family business), legal types of companies

#### Marketing

- Competition and marketing environment
- Customer oriented marketing
- Segmentation
- Buying behaviour

#### Production economics

- Production systems
- Production planning systems
- Ideal factory
- Production types
- Definition, concept and flows of logistics
- National and international logistics
- Factors and tasks of the logistics system
- Significance of logistics in national economics

### *Literature / Study Material*

- Viitala R. & Jylhä E. 2006. Liiketoimintaosaaminen. Helsinki: Edita
- Other material as indicated by the lecturer
- Lecture notes

### *Learning Methods*

- Lectures
- Group work
- Independent study
- Enterprise game
- Literature

### *Assessment*

Exam(s), group report, self-assessment and peer assessment

### *Languages of Instruction*

Finnish

### *Further Information*

Students may receive R&D credits for the course.

## **Introduction to economics, 2 op KE16A081110 (study unit)**

### *Lecturers*

Jorma J. Impola, MSc (Eng.)

### *Objectives*

Upon completion of the course, students will understand the concepts associated with national economy and be familiar with the basic structures, current situation and status of Finland's national economy in the global economy. Students will also understand the relationships between SME operations and the national economy.

### *Content*

- Basic concepts of national economy
- Growth in the economy and economic fluctuations
- Different economic systems
- Basics of micro and macro economy
- Monetary systems and inflation

### *Literature / Study Material*

- Lecture materials
- Other material as indicated by the lecturer

### *Learning Methods*

- Lectures
- Independent study
- Group work

### *Assessment*

- Exam
- Group report

### *Languages of Instruction*

Finnish

## **Business mathematics, 3 op KE16A081120 (study unit)**

### *Lecturers*

Leo Sippola, MA, MSc (Eng.)

### *Objectives*

Students will be competent in business mathematics and know how to apply their knowledge in their professional studies. They will understand the concepts associated with business mathematics and the common methods of calculation. Students will have command of indices, calculating percentages and credit. They will also be competent in calculating various investment calculations.

### *Content*

- Percentages
- Indices
- Interest
- Credit
- Investment calculations
- Securities

### *Literature / Study Material*

Lecture handout or textbook as indicated by the lecturer

### *Learning Methods*

Lectures and assignments

### *Assessment*

The course has two exams each of which accounts for 50 % of the grade for the course. Both exams must be passed to receive a grade for the course.



*Languages of Instruction*  
Finnish

## **Introduction to information technology, 3 op KE16A081130 (study unit)**

*Lecturers*  
Hannu Palomäki, MBA

*Objectives*  
Upon completion of the course, students will be competent in creating various types of documents using a word processing programme. They will also know how to make spreadsheets for various purposes, such as budgeting, investment calculations, and invoicing.

*Content*  
Word processing

- Formatting fonts, paragraphs and documents
- Using templates
- Creating a table of contents list of charts and diagrams
- Using various styles
- Dividing a document into parts
- Using graphics

Spreadsheets

- Managing spreadsheets
- Formulas and functions
- Three-dimensional charts
- Diagrams

*Literature / Study Material*

- Lecturer's materials
- Supporting literature: Hyppönen, A., Ojala, A. & Joutsu, J. 2007. Tietokoneen käyttötaito 1. WSOY pro/Docendo.

*Learning Methods*

- Lectures + exercises
- Independent study

*Assessment*  
Exams

*Languages of Instruction*  
Finnish

## **Learning skills, 2 op KE16A081140 (study unit)**

*Lecturers*  
Several different lecturers \* Raija Rauma is co-ordinator for the course.

*Objectives*  
Students will be familiar with the practices at the university of applied sciences, the learning environment and community, as well as the degree programmes and learning methods. They will understand the structure of the degree programme and apply that knowledge to their own learning. Students will be aware of their responsibility as learners and members of the learning community. They will have command of computer skills that they will use in their studies and know how to obtain needed information, which they will critically evaluate. Students will be competent in planning their own studies and developing their methods of learning. They will also be aware of the career opportunities available to them.

*Content*

- UAS as a learning environment
- Support functions: health care, student financial aid, etc.
- Various learning methods, evaluation and development of one's own learning

- Active learning
- Team work in education
- Library services and information acquisition systems
- Personal Study Plan
- Lectures by representatives of the working world

#### *Literature / Study Material*

Material as indicated by the lecturers

#### *Learning Methods*

- Active participation
- Completion of assignments

#### *Assessment*

Pass/fail

## **Communication in business, 5 op KE16A081150 (study unit)**

#### *Lecturers*

Saija Rått, MA

#### *Objectives*

Students will have a comprehensive understanding of how to plan and implement communications in an SME and the ways in which different communities manage internal and external communication. They will be competent in utilising communication skills as a resource in a company. Additionally, students will be able to appropriately interact with others; they will know how to take others into consideration and accommodate the demands of the situation and the professional field in communicating coherently, convincingly and clearly. Students will have the desire to develop their Finnish language skills and skills in communication as part of their professional know-how.

#### *Content*

- Communication in groups in the working world
- Procedures
- Dialog
- Taking the floor
- Assessment
- Leadership
- Communicating as an expert
- Communication culture
- Different types of texts
- Processing text
- Professional writing
- Personal communication competence
- Techniques of presentation
- Planning and implementing business communication
- Intercultural communication in business

#### *Literature / Study Material*

- Juholin E. 2006. Communicare! Viestintä strategiasta käytäntöön. Infor Oy TAT.
- Other material as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Group work
- Independent study

#### *Assessment*

Oral and written individual and group assignments.

#### *Languages of Instruction*

Finnish

#### *Further Information*

R&D: 1 credit

## **Ecology and consumer behaviour, 6 op KE16A081160 (study unit)**

### *Lecturers*

- Jorma Imppola, MSc (Eng.)
- Kimmo Kulmala, MSc (Econ.), MA

### *Objectives*

Students will acquire basic knowledge of the environmental factors affecting human beings and their operational environment, the relationships between production activities and environment, the effects of production on local, regional and global level. Students will be aware of the means to reduce the negative impacts of production on the environment. They will understand the significance of consumption in society, consumer behaviour and the manifestation of needs. Student will be competent in applying knowledge about consumer behaviour in decision-making pertaining to marketing.

### *Content*

- Environmental concepts and sustainable development
- Renewable and non-renewable natural resources: use the impacts of use
- Waste management and recycling
- Households and consumption
- Social dimensions of the consumption culture
- Consumer behaviour

### *Literature / Study Material*

- Mokka R. and Neuvonen A. (eds.). 2009. Olimme kuluttajia – neljä tarinaa vuodesta 2023. Tammi. pp. 159
- Lecture material
- Other material as indicated by the lecturer

### *Learning Methods*

- Lectures
- Work in groups
- Independent study
- Case studies
- Field trip

### *Assessment*

- Exams
- Work with case studies

### *Languages of Instruction* Finnish

### *Further Information*

Students may receive credit for research and development.

## **COMMON PROFESSIONAL STUDIES, 57 op EYAMMATTIOP (study entity)**

The general Professional Studies are professional studies mandatory to all students in the degree programme. Their aim is to provide students with in-depth knowledge of the core problems and applications of the field so as to enable them to develop into individuals capable of managing a small- and mid-sized enterprises (SMEs) with solid expertise.

## **Project planning, 3 op KE16B082100 (study unit)**

### *Lecturers*

Leo Sippola, MA & MSc (Eng.)

### *Objectives*

Students will possess basic knowledge and skills in planning and carrying out various projects. They will understand the concepts associated with project work, know what a project plan should include, be familiar with project schedules and deadlines and project management. They will also understand the relationship between the duration of a project, the amount of work in it, and the amount of resources for a project, and they will know how to estimate and calculate them.

Students will also know how to develop a project and how the evaluation of the technological and economical aspects work.

### *Content*

- Concepts associated with projects and utilising them
- Project plans
- Dividing projects into parts (stages)
- Planning schedules
- Planning resources
- Computer-based project management

### *Literature / Study Material*

As indicated by the lecturer.

### *Learning Methods*

- Lectures
- Exercises on computer
- Assignment

### *Assessment*

- Exam (50 %)
- Assignment (50 %)

\* Both parts must be successfully completed to receive a grade for the course.

## **Accounting and financial management, 9 op KE16B082110 (study unit)**

### *Lecturers*

- Economist Raija Rauma
- Economist Hannu Palomäki

### *Objectives*

Students will be familiar with the purposes and methods of general accounting, accounting technology and computer-based accounting as well as legislation pertaining to accounting. They will have command of the concepts associated with accounting and essential accounting models. Students will be competent in creating a strategy-based control system, including metres, and know how to analyse a company's profitability, economic and decision-making status using financial statements.

### *Content*

- Accounting-related legislation
- Profitability accounting
- Calculating solvency and meters
- Computerized financial management systems

### *Literature / Study Material*

- Ihantola & Leppänen, Yrityksen kirjanpito
- Neilimo & Uusi-Rauva, Johdon laskentatoimi
- Other material as indicated by the lecturer

### *Learning Methods*

Lecture and assignments

### *Assessment*

Exams and assignments

### *Prerequisites*

Introduction to Business Management: either completed or on-going

### *Languages of Instruction*

Finnish

## **International business, 9 cr KE16B082120 (study unit)**

### *Lecturers*

- Marjo Arola, MSc (Econ.)
- Guest lecturers from Finland and abroad

### *Objectives*

Upon completion of the course, the students will be familiar with the essential aspects of international business and ways how SMEs can become international, especially in Finland. They will understand the process of planning, carrying out and managing export marketing and international operations. Students will get acquainted with international business practices and export and import documentation. They will also be competent in intercultural communication and know how to operate in multinational environments.

### *Content*

- International trade and its systems in general
- Arguments and prerequisites for international trade
- Internationalisation process of SMEs; planning, implementation and management of internationalization in an SME
- Cultural factors and challenges in international business and in global business environment
- Organizations promoting international trade and information sources
- Structure, development and prospects of Finnish foreign trade

### *Literature / Study Material*

Lectures, articles, information obtained online, literature announced by the lecturer

### *Learning Methods*

- Lectures
- Assignments
- Team work
- Independent study

### *Assessment*

- Assignments
- Team work
- Exam

### *Prerequisites*

Introduction to Business Management

### *Languages of Instruction*

English

### *Further Information*

The course may yield R&D credits depending on the team work assignment.

## **Research and analysis, 6 op KE16B082130 (study unit)**

### *Lecturers*

- Leo Sippola, MA & MSc (Eng.)
- Anmari Viljamaa, MSSc & DSc (Econ.)

### *Objectives*

Upon completion of the course, students will understand the basic principles of research and the use of research in business. They will have command of the basic concepts of qualitative and quantitative research and possess the readiness to apply them to descriptive research, and they will be capable of applying their knowledge to in empirical research. Students will understand the basic stages of the research process and be able to plan, implement and report a small-scale study, thus producing added value for a company.

### *Content*

- Basic concepts in research

- Collection and analysis of qualitative data
- Statistics and the presentation of them
- Correlations, estimations, interpretation of results
- Obtaining and utilising data
- Interviews, observation, questionnaires
- Use of SPSS software
- Reporting research results and presenting them

#### *Literature / Study Material*

- Karjalainen, L. 2004. Tilastomatematiikka. 8th edition. Pii–Kirjat ky.
- Lecture material and other materials required in completing the research assignment.

#### *Learning Methods*

- Lectures
- Discussions
- Exercises
- Seminars
- Project work in groups (research plan, implementation and reporting for a company)
- Working as an opponent for another project group

#### *Assessment*

- Exam
- Active participation in class
- Research plan
- Research report (part of the grade)
- Working as an opponent (pass/fail)

#### *Prerequisites*

- Introduction to Business Management
- Business Mathematics
- Basics of IT
- Business Communication (KE16A081150)
- Project Management Procedures

#### *Languages of Instruction*

Finnish

#### *Further Information*

Students receive credit for research and development.

## **Entrepreneurial business management, 12 op KE16B082140 (study unit)**

#### *Lecturers*

- Kimmo Kulmala, MSc (Econ.) & MA
- Tero Turunen, MA
- Beata Taijala, BSc (Eng.) & LSc (Econ.)

#### *Objectives*

Upon completion of the course, students will understand the concepts associated entrepreneurship and business planning from the SME perspective. They will be competent in analysing business as an integrated whole and in carrying out the strategies set in an SME. Students will also be competent in utilising various sources of information and supporting organisations to develop an existing company or a company being established. They will understand the essential concepts associated with product development and productisation and the interdependency between market research and product development. They will be capable of planning business on the strategic and operational levels and of compiling a business plan and a marketing plan. Students will be able to evaluate a company's status in competition in relation to the situation in the market. They will also be able to apply their knowledge in planning to obtain competitive edge.

#### *Content*

- Developing a business idea and the strategy process
- Tools procedures in planning business
- Analysing the initial situation of a business

- Internal and external growth strategies, challenges to growth and management of growth
- Processes of product development and productisation
- Market positioning
- Planning marketing

#### *Literature / Study Material*

- Hakanen, M. 2004. PK-yrityksen strategiatyö, Multikustannus OR
- Karlöf, B. 2004. Strategian rakentaminen. Edita. OR
- Kamensky, M. 2008. Strateginen johtaminen. Talentum (in part) AND
- Kotler & Keller: Marketing Management, Prentice Hall. (12th edition or newer)
- Other materials as indicated by lecturers

#### *Learning Methods*

- Lectures
- Independent study
- Group work

#### *Assessment*

- Exams
- Business plan (incl. marketing plan)
- Peer evaluation

#### *Prerequisites*

Introduction to Business Management

#### *Languages of Instruction*

Finnish

#### *Further Information*

Students may receive credit for R&D depending on the type of business plan they have.

## **Leadership9 op KE16B082150 (study unit)**

#### *Lecturers*

Beata Taijala, BSc (Eng.), LSc (Econ.)

#### *Objectives*

Students will have a general understanding of organisational research, management, and the history and theory of human resource management (HRM). They will be familiar with various styles of management and be more aware of themselves as independent actors as well as members of a group. Students will have formed an understanding of management of human resource management, planning and control. The students will be familiar with different leadership approaches and the ethical dimensions of leadership.

#### *Content*

Part 1: History of Organisational Research Part 2: Self-awareness and Team Work Part 3: Human Resources Management Part 4: Leadership and managerial work

#### *Literature / Study Material*

As indicated by the lecturer.

#### *Learning Methods*

Lectures and workshop, team assignments and independent study

#### *Assessment*

Part 1: Moodle exam Part 2: Moodle exam + portfolio Part 3: Moodle exam + organisation survey Part 4: Moodle-exam + assignment

#### *Prerequisites*

Basic Studies

#### *Languages of Instruction*

Finnish (possibly partially English)

### *Further Information*

Students may receive R&D credits for the course.

## **Business law, 9 op KE16B082160 (study unit)**

### *Lecturers*

- Economist Raija Rauma
- Mika Kärkkäinen
- Master of Laws Timo–Matti Torppa, LSc (Econ.)

### *Objectives*

Students will be familiar with the characteristics, significance and tools of jurisprudence, as well as the legislation associated with various types of companies and labour laws. Upon completion of the course, students will understand the relationships between the norms of law and the system they form. Students will have command of the legal issues involved in establishing and managing a company. They will understand the essential regulations associated with marketing, foreign trade, and international agreements. Students will be familiar with the various forms of taxation for entrepreneurs and business operations, as well as tax–related issues associated with financial statements. Students will be competent in dealing with personal tax issues and those associated with running a business.

### *Content*

#### Internal corporate law

- Essential concepts in law
- Finland's legal system
- Acquiring information pertaining to law
- Legislation pertaining to various types of companies
- Norms pertaining to employment agreements
- Legal issues pertaining to financing

#### External corporate law

- Regulations pertaining to marketing
- Legal problems associated with logistics
- International agreement laws
- Special issues pertaining to international trade laws
- EU legislation

#### Taxation

- Personal income tax
- Planning financial statements and taxation
- Income tax for businesses
- Value Added Tax

### *Literature / Study Material*

- Kivelä & Nordell, Yrittäjän oikeutta
- Paanetoja, Työoikeus tutuksi
- Sorsa, Suomen markkinointioikeus
- Saarnilehto, Sopimusoikeuden perusteet
- Erma & Lehtinen & Tolonen, Ulkomaankaupan käsikirja
- Niskakangas, Johdatus Suomen vero–oikeuteen

### *Learning Methods*

Lectures, assignments

### *Assessment*

- Exams in each part of the course, internal corporate law, external corporate law and taxation
- Approved assignments

### *Prerequisites*

Introduction to Business Management

### *Languages of Instruction*

Finnish



## **PRIMARY OPTIONAL COURSES, 15 op** **EVAMMATTIOP (study entity)**

Students choose a total of five courses for their Optional Professional Studies.

### **Quality management, 3 cr** **KE16C082200 (study unit)**

#### *Lecturers*

Jorma Imppola, MSc (Eng.)

#### *Objectives*

Upon completion of the course, students will be familiar with different ideologies pertaining to quality and quality-control systems. They will understand the basic concept of quality control and know how to use the more common quality-control tools and statistical process control. They will also be familiar with quality-control systems and their structure and of the quality-control awards and their criteria.

#### *Content*

- Concept of quality
- Quality control, quality development and quality monitoring
- Quality-control optimisation
- Factors affecting quality
- Quality-control costs
- Total Quality Control (TQC)

#### *Literature / Study Material*

- Lecture materials
- Other materials as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Independent study
- Writing assignment to present at the course-end seminar

#### *Assessment*

- Exam
- Writing assignment and seminar presentation

#### *Languages of Instruction*

English

#### *Further Information*

NBD Programme

### **Marketing communication, 3 op** **KE16C082210 (study unit)**

#### *Lecturers*

To be announced.

#### *Objectives*

Students will be able to plan and evaluate goal-oriented marketing communications on the operational and strategic levels in an SME. They will understand the significance of the various sub-sectors of marketing communications and integrated marketing communications. Students will have the skills needed to implement basic marketing communications in an SME.

#### *Content*

- Significance and sub-sectors of marketing communications
- Objectives and planning marketing communications
- Integrated marketing communications
- Implementing and evaluating marketing communications
- Roles of advertising agencies and other sub-contractors

### *Literature / Study Material*

- Lecture material.
- EITHER Vuokko P. 2003. Markkinointiviestintä –merkitys, vaikutus ja keinot. Helsinki: WSOY. OR Salin V. 2002. Pk-yrittäjän opas kokonaisviestintään. Juva: WS Bookwell.
- Other material as indicated by the lecturer.

### *Learning Methods*

- Lectures
- Planning marketing communications for a company in small groups
- Computer exercises

### *Assessment*

- Exam
- Assignment
- Assessment by the client and teacher + self-evaluation

### *Prerequisites*

Introduction to Business Management

### *Languages of Instruction*

Finnish

### *Further Information*

R&D: 2 cr

## **Project management, 3 op KE16C082230 (study unit)**

### *Lecturers*

Beata Taijala, BSc (Eng.) & LSc (Econ.)

### *Objectives*

Students will be familiar with the diverse and multi-faceted issues concerning project management. Upon completion of the course, the students will be familiar with the duties of a project manager. They will also be aware of the latest developments in project management research.

### *Content*

Qualifications upon which project management certification is based:

- Technical qualifications
- Social skills
- Qualifications relating to the project environment

### *Literature / Study Material*

- Projektin Johdon Pätevyys 3.0 (available online)
- Other materials as indicated by the lecturer

### *Learning Methods*

Lectures/workshops, independent and group work

### *Assessment*

- Group report based on a book
- Partner enterprise report
- Independent assignment

### *Prerequisites*

Procedures in Project Management

### *Languages of Instruction*

Finnish

### *Further Information*

Students may receive credit for research and development.

## **SME networking, 3 cr KE16C082240 (study unit)**

### *Lecturers*

Tero Turunen, MA

### *Objectives*

Upon completion of the course, students will be familiar with the basic concepts and possibilities of networking in the SME sector and understand their role in establishing and developing businesses.

### *Content*

- Concepts of networking
- Areas and motives of networking
- Conditions, advantages and risks in different phases of a business's lifespan
- Different models
- Beginning and developing networking
- Management of network

### *Literature / Study Material*

Material as indicated by the lecturer.

### *Learning Methods*

Preliminary lectures, workshops in groups and presentations

### *Assessment*

Active participation in the workshops and completed presentations

### *Languages of Instruction*

English

### *Further Information*

NBD Programme

## **Services management and marketing, 3 op KE16C092250 (study unit)**

### *Lecturers*

Anmari Viljamaa, MSc (Pol. Sc.) & DSc(Econ.)

### *Objectives*

Students will understand the distinctive characteristics of service-providing businesses and be able to identify the areas where the service-oriented frame of mind has been applied in the business environment. Students will have command of the basic concepts of service management and marketing and be able to envision the possibilities and challenges of services from the perspective of business development. They will be competent in analysing a business from the point of view of services and have the potential to manage, market and develop services.

### *Content*

- Service production
- Leadership
- Marketing
- Productisation
- Pricing services
- Specialist services
- Service-providing business in industry
- Service quality
- Services and creating competitive advantage

### *Literature / Study Material*

- Grönroos C. 2001. Palveluiden johtaminen ja markkinointi. Helsinki. WSOY.
- Other materials as needed to produce a report

### *Learning Methods*

- Problem-based learning
- Discussions

- Process writing
- Exercises
- Online forum

#### *Assessment*

- Assignments
- Active participation
- Self-evaluation
- Peer evaluation

#### *Prerequisites*

- Basic Studies
- Entrepreneurship and Business Management

#### *Languages of Instruction*

Finnish

### **Logistics, 3 cr KE16C083100 (study unit)**

#### *Lecturers*

Jorma J. Imppola, MSc (Eng.)

#### *Objectives*

The course deepens students' knowledge of logistics, logistics planning, customer service in logistics and recycling. Upon completion of the course, students will have an overall understanding of materials flow and the optimal planning and control of it with regard to the operational and economical aspects. Furthermore, students will be knowledgeable of logistics research.

#### *Content*

- Transportation and its significance, logistic chain and distribution
- Transportation planning and transportation risk management
- Packing
- Inventories and the associated economical and operational significance
- Physical storage, the connection between storage and transportation
- Significance and costs of customer service
- Customer service strategies and service pricing
- Logistics and recycling

#### *Literature / Study Material*

- Lecture materials
- Other materials as indicated by the lecturer

#### *Learning Methods*

- Lectures
- Independent study
- Written assignment to presented at the course-end seminar

#### *Assessment*

- Exam
- Writing assignment and seminar presentation

#### *Prerequisites*

Introduction to Business Management or similar

#### *Languages of Instruction*

English

#### *Further Information*

NBD Programme

## **Project game, 3 cr KE16C083301 (study unit)**

### *Lecturers*

Beata Taijala, BSc (Eng.) & LSc (Econ.)

### *Objectives*

Upon completion of the course, students will understand the concepts associated with project work and be familiar with project documentation. Students will understand the different duties involved in projects and be capable of handling those duties.

### *Content*

Making and using various project documents, e.g. project handbook, project proposal, project plan, project folder, change order, final report

### *Literature / Study Material*

Materials as indicated by the lecturer.

### *Learning Methods*

- Lectures
- Project Game (100 % attendance is required to complete the course)
- Group work

### *Assessment*

- Project folder: 50 %
- Project manual: 50 %

Both parts must be successfully completed to receive a grade for the course.

### *Languages of Instruction*

English

### *Further Information*

NBD Programme

## **LANGUAGE STUDIES, 18 op EKIELIOP (study entity)**

During the first year the students take a total of 3 credits of English and Swedish each. In addition the students take 3 credits of either Russian or German. During their second year of studies, students take another 3 credits of English and Swedish each, and a further 3 credits of German or Russian. Students may also take optional language courses, e.g. Russian, Spanish or French, depending on the courses available for the year.

## **Business English, 3 op KE16A094100 (study unit)**

### *Lecturers*

Kaija-Liisa Kivimäki, MA

### *Objectives*

Students will know basic business vocabulary and concepts. They are able to communicate about topics related to study, work and business operations and they cope with ordinary work-related communication situations orally and in writing. Having completed the course, students will be able to

- tell about themselves, their education and work experience, for example in job interviews,
- write a job application and CV,
- deal with work-related tasks by telephone and email,
- tell about the operations of companies in their own field and their products/services,
- know the basic concepts of economic life and business operations, and
- acquire and utilise information connected with their own field.

### *Content*

- Telling about oneself and one's educational background, work experience
- Job applications and CVs
- Telephone and email communication, reporting

- Describing one's working environment, working conditions and tasks, company operations
- Structure of economic life, trade and business
- Information acquisition

#### *Literature / Study Material*

Niskanen, Vetter and Urbom: Business Express (WSOY 2008)

#### *Learning Methods*

- Oral and written exercises
- Listening comprehension
- Group and pair work
- Lectures

#### *Assessment*

- Active participation in contact teaching
- Completion of written and oral assignments and exercises
- Final exam

\* All parts must be successfully complete to receive a grade for the course.

#### *Languages of Instruction*

Finnish and English

### **Business communication, 3 op KE16A094110 (study unit)**

#### *Lecturers*

Kaija-Liisa Kivimäki, MA

#### *Objectives*

Students will be competent in business-related situations requiring written and oral communication. They will be aware of cultural differences in business-related situations. Students professional orientation will be taken into consideration. Having completed the course, students will

- be able to write business letters,
- be able to write an invitation, an agenda, minutes of a meeting,
- be familiar with meeting procedures,
- be competent in making travel arrangements and deal with company visits, and
- be competent in managing business negotiations and taking into consideration cultural differences.

#### *Content*

- Business communication, business correspondence ( inquiries, requests for quotation, orders, confirmations, complaints, collection letters )
- Oral presentations
- Intercultural differences in communication
- Meetings, negotiations, telephone messages
- Getting familiar with companies using the Internet

#### *Literature / Study Material*

- Niskanen, Vetter & Urbom. 2008. Business Express. WSOY
- Material provided by the teacher

#### *Learning Methods*

- Portfolio
- Spoken and written exercises
- Listening comprehension
- Work in groups and pairs
- Lectures

#### *Assessment*

- Active participation in contact teaching
- Portfolio

- Completion of written and oral assignments by the due date
- Self-assessment
- Peer-assessment

*Prerequisites*  
Business English

*Languages of Instruction*  
Finnish and English

## **English, preparatory study unit KE16D084600 (study unit)**

*Lecturers*  
Kaija-Liisa Kivimäki, MA

*Objectives*  
This is a preparatory course for studies in English on the university of applied sciences level. Students will enhance their basic language skills and develop their communication skills.

*Content*  
Exercises and texts on basic grammatical structures and improvement of business vocabulary.

*Literature / Study Material*

- Eskola & Iikkanen. 2007. Way to Go. Otava.
- other materials as indicated by the lecturer

*Learning Methods*  
Oral and written exercises, contact teaching, listening comprehension.

*Languages of Instruction*  
Finnish and English

*Further Information*  
The course is recommended to students who have not taken the matriculation exam in A level English or who have received a grade of A or B on their matriculation exam for English. The course is also recommended to those who have not studied or used English in a long time.

## **Business Swedish, 3 op KE16A094200 (study unit)**

*Lecturers*  
Päivi Uitti, MA

*Objectives*  
Students will have spoken and written competence in using Swedish in both ordinary and field-related situations. They will possess skills and terminology in obtaining and utilizing field-related information. They have a positive attitude towards Swedish language learning. Upon completion of the course, students will

- be competent in obtaining field-related information in Swedish,
- be competent in telling about themselves, their education and job experience in Swedish,
- be competent in telling about their work environment, functioning as a representative of their company and telling about the company's product range,
- know how to communicate with customers in Swedish in person and on the telephone.

*Content*

- Telling about oneself and one's education
- Job seeking, interviews, CVs
- Describing one's work environment, conditions and duties
- Describing a company and its operations
- Small talk
- Telephone conversations and electronic communication
- Meetings, guiding others, giving opinions and arguing in favour of those opinions
- Customer-service situations
- Presentation of products

### *Literature / Study Material*

To be announced.

### *Learning Methods*

- Oral exercises: dialogues, group discussions and presentations
- Written assignments and listening comprehension
- Participation of a partner company in exercises

### *Assessment*

- Active participation in contact teaching
- Active use of oral skills (oral presentations and dialogues)
- Written exercises and assignments
- Exam

\* All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Command of the more significant structures of Swedish

### *Languages of Instruction*

Finnish and Swedish

## **Swedish business communication, 3 op KE16A094210 (study unit)**

### *Lecturers*

Päivi Uitti, MA

### *Objectives*

Students will have both written and oral competence in Swedish, obtaining and utilising field-related information and mediating it to others. Upon completion of the course, students will,

- be competent in creating and maintaining business relations in Swedish
- be able to write e-mails and business-related documents in Swedish,
- be competent in using tools to look for information from various sources in Swedish, and
- be familiar with the differences in the business cultures in Finland and Sweden.

### *Content*

- Business correspondence (enquiries, offers, orders and complaints)
- Differences between the business cultures in Finland and Sweden–
- Business to business communication (e.g. trade fairs, company visits)

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Oral exercises: dialogues, group discussions and presentations
- Written assignments and listening comprehension

### *Assessment*

- Active participation in contact teaching; active use of oral skills
- Active demonstration of oral skills
- Completion of written assignments
- Exam

\* All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Business Swedish

### *Languages of Instruction*

Finnish and Swedish



### *Further Information*

Students may receive credit for research and development depending on the degree programme they are in.

## **Swedish, preparatory study unit KE16D084500 (study unit)**

### *Lecturers*

Päivi Uitti, MA

### *Objectives*

Students will be competent in communicating in Swedish both orally and in writing. They will be capable of acquiring and utilising field-related information in Swedish and relating that information to others. Upon completion of the course, students will be competent in utilising tools and find field-related information in Swedish and understand ordinary texts in Swedish.

### *Content*

- Revising basic grammatical structures
- Revising basic vocabulary
- Revising phrases

### *Literature / Study Material*

As indicated by the lecturer.

### *Learning Methods*

- Spoken exercises such as dialogues, group discussions and presentations
- Written exercises
- Listening comprehension
- Computer-assisted learning

### *Further Information*

This is a preparatory course and does not yield any credits.

## **German 1, 3 op KE16C084301 (study unit)**

### *Lecturers*

Tanja Lehtomaa, MA

### *Objectives*

Students will acquire basic knowledge of both oral and written German, which they will be able to use in everyday situations. Students are familiar with German-speaking countries as well as culture and customs. Upon completion of the course, the student will be competent in

- telling about oneself and one's studies,
- describing one's work environment and duties, and
- planning and participating in company visits.

### *Content*

- Telling about oneself (personal pronouns present tense
- and one's education (articles, negatives and numerals)
- Working hours and duties (time, weekdays, months, word order)
- Company premises (prepositions)

### *Literature / Study Material*

- Kauppi & Simon: Fahrplan, texts and vocabulary (Tammi)
- Kauppi & Simon: Fahrplan, grammar and exercises (Tammi)

### *Learning Methods*

- Oral exercises
- Written assignments

### *Assessment*

- Active participation in class
- Active demonstration of oral skills
- Completion of written assignments
- 2 exams

\* All parts must be successfully completed to receive a grade for the course.

*Languages of Instruction*  
Finnish and German

## **German 2, 3 op KE16C084311 (study unit)**

*Lecturers*  
Tanja Lehtomaa, MA

*Objectives*  
Students will advance their basic skills in the structures of German and they will expand their knowledge of vocabulary. Upon completion of the course, students will

- be able to order food and drink in a restaurant,
- be able to tell about their family and how they live, and
- be able to tell about their hometown and country.

*Content*

- Vocabulary pertaining to food and phrases to use in a restaurant (modal verbs)
- Vocabulary relating to family relationships and living (prepositions and imperatives)
- Telling about one's hometown and country (giving/receiving directions to somewhere, possessive pronouns)

*Literature / Study Material*  
Kauppi & Simon: Fahrplan, texts and vocabulary (Tammi) Kauppi & Simon: Fahrplan, grammar and exercises (Tammi)

*Learning Methods*

- Oral exercises
- Written assignments

*Assessment*

- Active participation in class
- Active demonstration of oral skills
- Completion of written assignments
- 2 exams

\* All parts must be successfully completed to receive a grade for the course.

*Prerequisites*  
German I or basic knowledge of German

*Languages of Instruction*  
Finnish and German

## **Business German, 3 op KE16C084321 (study unit)**

*Lecturers*  
Tanja Lehtomaa, MA

*Objectives*  
Students will learn the German language skills needed in the business world. Students will be competent in customer-oriented, spoken and written business communication. They will also be competent in acquiring and utilising field-related information in German. Furthermore, the students will become familiar with the culture and customs in German-speaking countries. Upon completion of the course, students will

- be competent in telling about themselves, their education and their job experience,
- be competent in telling about their work community and the society in which they live,
- be competent in applying for a job in German

- communicate in a customer-oriented manner, and
- recognise and use field-related terminology.

### *Content*

- Telling about oneself and one's education
- Applying for a job, job interviews, making a CV
- Describing one's work environment and duties
- Telephone conversations
- E-mails
- Education systems in Finland and Germany
- Knowledge about Finland

### *Literature / Study Material*

Rakkolainen & Tuomiala-Mäkelä & Bürkel: Deutsch im Berufsleben (Edita)

### *Learning Methods*

- Contact teaching
- Oral exercises
- Written assignments
- Listening comprehension

### *Assessment*

- Active participation in class
- Active demonstration of oral skills
- Completion of written assignments and exercises
- Exam

\* All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Command of the essential structures of German

### *Languages of Instruction*

Finnish and German

## **German business communication, 3 op KE16C084331 (study unit)**

### *Lecturers*

Tanja Lehtomaa, MA

### *Objectives*

Students will advance their knowledge of business vocabulary. Upon completion of the course, students will be able to successfully use the German language, both spoken and written skills, in various situations in the business world. They will be competent in writing business letters, doing business on the phone and have command of related vocabulary.

### *Content*

- Obtaining contacts in partner businesses or organisations
- Business correspondence (enquiries, offers, orders, confirmations)
- Telephone calls and e-mails

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Contact teaching
- Oral exercises
- Written assignments

### *Assessment*

- Active participation in class
- Active demonstration of oral skills

- Completion of written assignments
- Exam
- Portfolio

\* All parts must be successfully completed to receive a grade for the course.

#### *Prerequisites*

- Command of the essential structures of German
- German Business Communication

#### *Languages of Instruction*

German and Finnish

### **Russian 1, 3 op KE16C084401 (study unit)**

#### *Lecturers*

Päivi Uitti, MA

#### *Objectives*

Upon completion of the course, students will have command of

- the Cyrillic alphabet and
- basic grammatical structures (gender and plural of nouns and adjectives, singular nominative of nouns and personal pronouns, prepositionals and the accusative, the present tense and the preterite, basic action verbs, forming adverbs, possessive pronouns, basic numbers and negatives).

Students will be familiar with basic vocabulary and be able to communicate appropriately orally and in writing in the following situations:

- Greeting people
- Introducing themselves and others
- Asking for the time
- Telling about one's level of language skills, family and travelling
- Ordering food and drinks in a restaurant

#### *Content*

- Cyrillic alphabet
- Pronunciation
- Greeting others, asking the time, telling about yourself
- Asking and telling the way
- Telling about one's language level, travelling, family and preferences
- Restaurant vocabulary
- Basic structures of Russian

#### *Literature / Study Material*

- Nikiforow M., Keränen R., Alikov V. Saljut! 1. Venäjän alkeiskurssi (beginner's course)
- Material distributed during the lessons

#### *Learning Methods*

- Oral exercises: dialogues, work in pairs and in groups
- Written assignments

#### *Assessment*

- Active participation in lessons
- Active demonstration of oral skills
- Completion of written assignments
- Exam

\*All parts must be successfully completed to receive a grade for the course.

#### *Languages of Instruction*

Finnish and Russian

## **Russian 2, 3 op KE16C084411 (study unit)**

### *Lecturers*

Tanja Kuivinen

### *Objectives*

Students will expand their vocabulary and knowledge of grammar and practise their oral and written communication skills. They will also be introduced to the customs of the Russian people. Upon completion of the course, students will have command of

- the singular genitive of nouns and personal pronouns,
- the more common prepositions,
- "-sja-" verbs,
- action verbs,
- prefixes,
- the future tense,
- aspect, and
- ordinal numbers.

Students will also be competent in handling simple, routine situations using spoken and written language skills, e.g. travelling, telling about one's job/company and talking on the telephone. They will understand simple texts with the help of a dictionary and be able to write short messages.

### *Content*

- Making introductions and getting to know people
- Use of first and last names and the name of one's father in the correct way
- Telling about one's hobbies and leisure time
- Buying tickets and situations pertaining to travelling
- Using expressions of time
- Basic grammatical structures
- Telephone conversations
- Telling about one's place of work

### *Literature / Study Material*

- Nikiforow M., Keränen R. & Alikov V. 2008. Saljut! 1. Otava, Chapters 6–9.
- Other material distributed during the lessons.

### *Learning Methods*

- Oral exercises, e.g. dialogues, work in pairs and groups
- Written assignments

### *Assessment*

- Active participation in lessons
- Active demonstration of oral skills
- Completion of written assignments
- Exam

\*All parts must be successfully completed to receive a grade for the course.

### *Prerequisites*

Russian I or other beginner course

### *Languages of Instruction*

Finnish and Russian

## **STUDIES TO PERSONAL LEARNING PLAN, 30 op EHOPSMUK (study entity)**

In addition to their practical training, students will complete 30 credits of coursework according to their Personal Study Plan during their third year of studies. The degree programme has three main alternatives for these studies – two involving internationalization (Studies Abroad/KE16D085100 and Gateway/KE16D085110) and one involving entrepreneurship (EYRITTÄJYYS). The studies in the Entrepreneurship Module are suited to students' career plans as agreed with the head of degree programme. Students also have the opportunity to take part in a project in the business

world (KE16D085130, 0–10 credits).

## **Internationalization EKANVÄLIST (study entity)**

In addition to their practical training, students will complete 30 credits of coursework according to their Personal Study Plan during their third year of studies. The degree programme has three main alternatives for these studies – two involving internationalization (Studies Abroad/KE16D085100 and Gateway/KE16D085110) and one involving entrepreneurship (EYRITTÄJYYS).

### **Studies abroad, 30 op KE16D085100 (study unit)**

#### *Objectives*

After having spent a semester abroad, students will be fluent in at least one foreign language (either the language of the host country or the language of instruction in the host university). Students will understand the existence of different cultures. During their semester abroad, students will acquire personal contacts there, which they will be able to use when they begin working. A semester abroad provides students with new perspectives of the contents of their professional studies and of learning.

#### *Content*

Students will complete 15–30 credits of coursework abroad according to their Learning Agreement. Studies abroad comprise elective courses applicable to the degree programme, which are accepted as completed courses for the students' degree. The student is required to confirm acceptability of courses beforehand. Students are required to write three reports during the exchange in accordance with instructions.

#### *Literature / Study Material*

As indicated by the courses at the foreign institution of higher education the students attend.

#### *Learning Methods*

As indicated by the courses at the foreign institution of higher education the students attend. Students integrate into the institution as a member of the student body.

#### *Assessment*

Approved grades given in the institution abroad may also be given as approved grades in the Degree Programme in SME Business Administration. Additionally, a maximum of 3 credits may be given to students for their approved reports as part of the studies completed abroad.

#### *Prerequisites*

Students are required to complete 100–120 credits of coursework before going on an exchange and possess a sufficient level of language skills approved by the university of applied sciences.

#### *Languages of Instruction*

Language of teaching in the institution abroad: English, German, Swedish, Russian, French, or Spanish.

#### *Further Information*

Further information: Marjo Arola, marjo.arola(at)seamk.fi

### **Gateway, 30 op KE16D085110 (study unit)**

#### *Lecturers*

Various lecturers and professors from Finland, Estonia, Lithuania, Latvia, Russia, Germany and the USA

#### *Objectives*

Upon completion of the Gateway Programme, students will possess the readiness needed to engage in trading and other business activities with companies in the Russian and Baltic markets. Students will acquire a comprehensive understanding of the history, culture and economy of these countries. They will also be familiar with the special features of doing business in the mentioned markets.

#### *Content*

The Gateway Programme comprises five modules, which are worth 6 credits each: MODULE: Basic Language and Culture Studies (choose at least 6 ECTS)

- Finnish language and culture 1(3 ECTS)
- Finnish language and culture 2(3 ECTS)
- Russian 1 (3 ECTS)
- Spoken Russian (2 ECTS)

#### MODULE: Doing Business in Russia (6 ECTS)

- Russia: Target for Business Operations (2 ECTS)
- Business Environment in Russia (2 ECTS)
- Financial Accounting in Russia (2 ECTS)

#### MODULE: Doing Business in the Baltic States (6 ECTS)

- Business Environment and Operations in Estonia (2 ECTS)
- Business Environment and Operations in Lithuania (2 ECTS)
- Business Environment and Operations in Latvia (2 ECTS)

#### MODULE: International Business Expertise (6 ECTS)

- Cross-cultural Management (3 ECTS)
- European Economic Policies (3 ECTS)

#### MODULE: Field Studies: Applications in Practice (6 ECTS)

- Study Tour \*) (3 ECTS)
- Project Work (3 ECTS)

\*) The study tour can be replaced with the course Doing Business in the St Petersburg Region (3 ECTS).

#### *Literature / Study Material*

The literature and other required material for the courses in the Gateway Programme are available in the Gateway Study Guide.

#### *Learning Methods*

- Lectures
- Literature
- Articles
- Assignments
- Presentations
- Visits to companies
- Study tours
- Exams

#### *Assessment*

The requirements for attendance, assignments, presentations and exams are indicated in the Gateway Study Guide.

#### *Languages of Instruction*

English

#### *Further Information*

The Gateway Programme takes place each year in the spring semester from March to May. It is intended for students in the Degree Programme in SME Business Management as one elective for a Personal Study Plan module. However, exchange students from foreign institutions of higher education are also welcome to take part in the programme. Finnish Language and Culture I & II have been included in the programme for foreign students only.

## **Entrepreneurship EYRITTÄJYYS (study entity)**

Students discuss the courses to take in the EYRITTÄJYYS Module with the head of degree programme with consideration to their personal career plans. Students who intend to engage in entrepreneurship or employment in a specific business sector would benefit from the Project for Business (KE16D085130, 0–10 credits) option. In addition, students' Personal Study Plan should contain courses of a suitable level in the Degree Programme in SME Business Management and other degree programmes offered in the Business School, e.g. KD07CH03 Online Business or courses in marketing. Students may also include courses from other faculties in Seinäjoki UAS, Yritystalli or courses offered at other universities.

## **A project for business KE16D085130 (study unit)**

#### *Lecturers*

Co-ordinator Tero Turunen, MA

*Objectives*

Students will develop their relations with the business world and/or public sector. They will be competent in producing consultancy services for businesses and in working responsibly in projects, from start to finish. Students will be encouraged to create new projects and in this way to apply their creativity and problem-solving skills.

*Content*

The contents of the project work will be determined together with the commissioner of the project. It may entail a marketing report, the organisation of an event, planning of various measures and implementation, or producing marketing material for a company.

*Learning Methods*

Students will carry out the project either alone or in a group. After the innovation phase, students will compile a short project plan. The lecturer will then approve the start of the project based on the project plan and estimate the extent of the project. Students will write a final report about the project.

*Assessment*

The supervisor evaluates the contents and extent of the project work based on the student's final report. The supervisor then gives a statement about the approval of the work and including it in the student's studies.

*Further Information*

The extent of the project work is 0–10 credits. In addition, students are required to complete other courses totalling 20–30 credits.

## **Other studies, 30 op KE16D085140 (study unit)**

*Lecturers*

Lecturers for other courses as stated in the Personal Study Plan

*Further Information*

In addition to the project work, students are required to complete other courses totalling 20–30 credits.

## **PERSONAL SPECIALIZATION, 15 op EERIKOIST (study entity)**

Students complete the courses they have chosen in their Personal Study Plan. They generally choose courses offered in the Business School, but it is also possible to choose courses in other faculties as long as they are associated with students' chosen line of study and approved by the head of degree programme. Students may also choose courses from the degree programme's elective course options. The head of degree programme must approve the courses students choose for their Personal Study Plan.

## **Other studies, 15 op KE16D085150 (study unit)**

*Objectives*

The purpose of the elective courses in students' Personal Study Plan for their last year of studies is to enhance their knowledge and expertise in the areas related to their career choices.

*Further Information*

Students must have the courses they choose approved by the head of degree programme.

## **PRACTICAL TRAINING, 30 op ETYÖHA (study entity)**

**Objectives:** The aim of the practical training is to familiarise students with the tasks central to their professional studies in practice under supervision, and provide students with an opportunity to apply their knowledge and skills in practice. **Contents:** Students do their practical training during their third year of study, and they may do it in Finland or abroad. The placement must be carefully selected to ensure that it can be integrated into the students' studies as a whole. If a student wishes to do the practical training in his/her own company or a company own by his/her family, the school requires a statement on the completion of the training from an external party considered competent in monitoring the training period. Practical training periods shorter than four weeks will not be accepted. The guidelines followed in the Business School are used in planning and reporting about practical training. The head of the degree program may accept, based upon satisfactory documentation, a maximum of 15 ECTS (10 cr) for work experience acquired in the field before the beginning of the studies. **Literature/Study material:** Instructions provided by the faculty



## Practical training, 30 op KE16E086100 (study unit)

### Objectives

Practical training orientates students into practical job duties. During their practical training, students will gain a diverse understanding of the duties in their professional field especially. They will apply the knowledge and skills they have learned in their studies to the working world.

### Content

- Searching for a place to do one's practical training
- Compiling a practical training plan
- Completing the practical training and reporting about it

\* Adult education students may complete their practical training at their workplace.

### Literature / Study Material

Guidelines for the degree programme's practical training

### Learning Methods

- Learning while working
- Compilation of reports

### Assessment

Pass/fail

## BACHELOR'S THESIS, 15 op EOPINNÄ (study entity)

**Objectives:** The purpose of the thesis is to develop and demonstrate students' readiness to apply the knowledge and skills they have learned to practical situations and in this way support their growth into experts in their chosen profession. The thesis writing process develops students' problem-solving skills, scientific way of thinking, independent information acquisition and skills in writing reports. The thesis can function as a bridge to the working world. **Contents:** Theses usually involve applied research and development to serve one's chosen professional field. Theses may take the form of a development project (for ex. the improvement of a company's current practices or the designing of new practices), a product or production (for ex. designing and development of a new product, tools, guidebook or event), or an empirical study (for ex. an operations model, evaluation research or theoretical study). **Literature/Study material:** Students read literature related to their thesis topic. They also an essay pertaining to methodology: qualitative or quantitative methods or action research. Recommended literature for the essay includes

- Heikkilä T. 2001. painos. Tilastollinen tutkimus. 3rd edition. Edita
- Hirsjärvi S. and Hurme H. 2001. Tutkimushaastattelu, teemahaastattelun teoria ja käytäntö. Yliopistopaino
- Vilkkä H. & Airaksinen T. 2003. Toiminnallinen opinnäytetyö. Gummerus.

**Learning methods:** The learning process is based on the constructivist theory of learning. Students interpret their observations and the new information they have produced and relate it to their previous knowledge and experiences. Students usually do their thesis alone, but on some occasions they may do it together with someone else, in a group or as teamwork. The thesis is supervised by a teacher who assists students throughout the entire thesis writing process. Students are required to actively participate in seminars where they present their work twice in the beginning stages and once at the end of the process. The following are included in the thesis writing process in addition to the written part of the thesis:

- Seminars and presentation of the thesis
- Test on the Guidelines for Writing a Thesis
- Test on methodology
- Course on information acquisition
- Abstract in English
- Language maintenance test
- Checking of the use of language (communications teacher)
- Entering the abstract into the library's database
- Maturity Test

**Assessment:** The assessment criteria are the same for all students attending Seinäjoki University of Applied Sciences and they can be found in the Guidelines for Writing a Thesis (see Seinäjoki UAS's Intranet). Further information: See the Guidelines for Writing a Thesis. Additional information about the thesis writing process is offered at the beginning of the academic year.

## **Thesis, 15 op KE16F087100 (study unit)**

### *Lecturers*

Thesis process is co-ordinated by Principal Lecturer Beata Tajala. The supervisors for the theses is chosen individually for each student.

### *Objectives*

The purpose of the thesis is to develop and demonstrate students' readiness to apply the knowledge and skills they have learned to practical situations and in this way support their growth into experts in their chosen profession. The thesis writing process develops students' problem-solving skills, scientific way of thinking, independent information acquisition and skills in writing reports. The thesis can function as a bridge to the working world.

### *Content*

Theses usually involve applied research and development to serve one's chosen professional field. Theses may take the form of a development project (for ex. the improvement of a company's current practices or the designing of new practices), a product or production (for ex. designing and development of a new product, tools, guidebook or event), or an empirical study (for ex. an operations model, evaluation research or theoretical study).

### *Literature / Study Material*

Students read literature related to their thesis topic. They also an essay pertaining to methodology: qualitative or quantitative methods or action research. Recommended literature for the essay includes

- Heikkilä T. 2001. painos. Tilastollinen tutkimus. 3rd edition. Edita
- Hirsjärvi S. and Hurme H. 2001. Tutkimushaastattelu, teemahaastattelun teoria ja käytäntö. Yliopistopaino
- Vilkka H. & Airaksinen T. 2003. Toiminnallinen opinnäytetyö. Gummerus.

### *Learning Methods*

The learning process is based on the constructivist theory of learning. Students interpret their observations and the new information they have produced and relate it to their previous knowledge and experiences. Students usually do their thesis alone, but on some occasions they may do it together with someone else, in a group or as teamwork. The thesis is supervised by a teacher who assists students throughout the entire thesis writing process. Students are required to actively participate in seminars where they present their work twice in the beginning stages and once at the end of the process. The following are included in the thesis writing process in addition to the written part of the thesis:

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- Test on methodology
- Course on information acquisition
- Abstract in English
- Language maintenance test
- Checking of the use of language (communications teacher)
- Entering the abstract into the library's database
- Maturity Test

### *Assessment*

The assessment criteria are the same for all students attending Seinäjoki University of Applied Sciences and they can be found in the Guidelines for Writing a Thesis (see Seinäjoki UAS's Intranet).

### *Further Information*

See the Guidelines for Writing a Thesis. Additional information about the thesis writing process is offered at the beginning of the academic year.

## **FREE CHOICE STUDIES EVAPVALIT (study entity)**

The purpose of the elective courses is to expand and deepen students' individual professional expertise. Students may choose elective courses from those offered in various degree programmes in the university of applied sciences, in the open university, or they may be corresponding courses that students have completed elsewhere, which must be approved by the head of degree programme. The head of degree programme must approve students' chosen electives before they can take part in the courses.

## **Free choice studies, Seinäjoki UAS KE16D096100 (study unit)**

### *Further Information*

Students primarily take elective courses for the Degree Programme in SME Business Management that are offered in the programme. However, students may also take courses offered in other degree programmes in business. Students must

have the courses they choose approved before they can take part in them.

## **Practical project in guerilla marketing, 3 op KE16D096110 (study unit)**

### *Lecturers*

Anmari Viljamaa, MSc (Pol. Sc.) & DSc (Econ.)

### *Objectives*

Students will understand the reasons for and opportunities related to alternative marketing methods. They will be able to assess the suitability of different means of alternative marketing in different marketing contexts and have the capacity to plan, implement and assess a guerilla marketing campaign.

### *Content*

Planning and implementing a marketing plan for the institution based on the principles of guerrilla marketing.

### *Literature / Study Material*

- As indicated by the lecturer
- Recommended reading: Parantainen, J. 2008. Sissimarkkinointi. Talentum

### *Learning Methods*

Exercises, group work, planning and implementing a project.

### *Assessment*

Active participation, portfolio report

### *Prerequisites*

Suitable for second-, third- and fourth-year students.

### *Languages of Instruction*

Finnish

### *Further Information*

anmari.viljamaa(at)seamk.fi

# Degree Programme in Social Work (In Finnish)

## QUALIFICATION AWARDED

Bachelor of Social Services

## SPECIFIC ADMISSION REQUIREMENTS

Please see the Applicant's Guide or the website [www.seamk.fi](http://www.seamk.fi).

## PEDAGOGICAL APPROACH

Teaching in the Degree Programme in Social Work is based on the constructivist theory of learning whereby learners take an active role in their education and make a conscious effort to develop their structures of knowledge. Learners acquire skills to evaluate their own needs for knowledge and they have the desire to set goals to achieve that knowledge. During their studies in the profession of social work, students strive to develop their ability to reflect, i.e. the skills and desire to examine from many different perspectives the motives, manifestations and influences behind one's actions.

Each learner has his/her own natural way of learning things. For this reason, teaching in the degree programme involves a wide range of methodology. The degree programme's choices of pedagogy are based on the following principles:

1. *Study modules are based on knowledge and skills needed in the profession.* The foundation of the courses in the modules lies in professional work. The modules are extensive, but they comprise shorter courses that complement each other. Additionally, all of the courses that provide students with general competences, such as languages, communications and information technology, are taught from the point of view of social work.
2. *Pillars within the degree programme heighten students' expertise.* The pillars represent the essential educational contents in the degree programme, which remain steadfast and become more advanced as the studies progress. The contents form the basic structure of professional expertise. Contents, which form a continuum throughout the degree programme, include:
  - Analysis of the individual and society
  - Study of methods needed in the profession
  - Obtaining skills in social research
  - Reflection on professional growth
3. *Students learn by combining theory with practice.* Students apply the theory they have learned to practical situations and examine phenomena they have observed in practical situations through theory. The study modules and courses nearly always involve applied tasks, some of which are carried out in practical work. The practical training periods in the degree programme are supervised.
4. *Students develop their perspectives and expertise with the help of a group.* During their studies, students are members of several different groups. The groups are learning environments where students learn social skills needed in the working world, give and receive feedback, and examine phenomena from many different perspectives and in relation to ethics.
5. *The learning methods are diverse and well considered with regard to learning course contents.*
  - *Contact teaching and independent study:* Many methods of learning are carried out in study groups, e.g. lectures, reading circles, group assignments, and demonstrations. To complement the contact teaching, students generally do an independent assignment(s), an exam based on written material and a practical exercise.
  - *Problem-based learning:* Students engage in problem-based learning at two essential stages of their studies: during their sector studies and when studying about methods for organising, supervising and developing work. During the latter stage, students examine the theory they have learned as it relates to the practical situations they encounter in their practical training.
  - *Online teaching:* Course contents that would most likely be more beneficial to students in an online environment and which diversify students learning opportunities are taught on the Internet. Additionally, each group of students has its own Moodle platform to use for basic information and group-specific assignments.
  - *Investigative learning:* People and community as source of information and Qualitative research methods are examples of study modules where students acquire and analyse information, which is beneficial to them in practical work and learning.
6. *Entrepreneurial perspective to studying:* All of the students in the Degree Programme in Social Work complete at least one practical training period in an enterprise or other organisation. Students are encouraged to examine alternative ways to provide social services.

## PROFILE OF THE PROGRAMME

The heart of the Degree Programme in Social Work lies in the social aspect of the everyday life of the individual in the community and society. The objective of the programme is to learn to understand and analyse the social aspects on an individual's life and with that knowledge promote the well-being of people of different ages, groups and communities. Expertise in social issues calls for the ability to perceive the life situation of an individual as part of broader social and cultural events. Indeed, the purpose of the degree programme is to develop students' ability to analyse connections between various phenomena and accustom their abilities to understanding situations from a social point of view.

The essence of expertise in social work is to guide the growth and development of the individual and to encourage the individual to find solutions for his/her life in a way that is characteristic to his/her personality. This does not mean finding solutions or "doing the right thing" on behalf of another person. For this reason, one of the most important objectives of the programme is to develop students' professional persona and moral.

During their studies, students learn to evaluate how appropriate different methods in the profession are to an individual's well-being, ability to function and participation, and the impact they have on the promotion of these issues. Service consultation, psychosocial consultation, and learning skills to work with families, various groups and communities and in projects are a part of the curriculum for everyone who is studying to be a Bachelor of Social Services at Seinäjoki University of Applied Sciences. Students also learn to use creative means for working with individual clients and groups.

Courses in the degree programme involve drama, arts, handicrafts and music, which students learn to combine with professional skills in social work. The aim is for students to understand the social service system so well that they possess the knowledge and skills to combine services to support clients, provide guidance to clients on how to utilise the services and to collaborate with others in the service network once they have graduated. Moreover, they will have the readiness they need to function as a service provider. Students also learn about managing services and projects to the extent where they have the ability to organise, evaluate and develop activities that meet clients' needs and to lead a work community and strengthen the collaboration and expertise of the members working in that community.

The Degree Programme in Social Work at Seinäjoki University of Applied Sciences is a part of a national project led by the Ministry of Employment and the Economy. The purpose of the project is to enhance the expertise of labour administration in bachelor degree programmes for social welfare and business. This collaboration enables Seinäjoki UAS to offer students in the Degree Programme in Social Work the opportunity to study labour administration, employment opportunities for various life situations, and rehabilitation for people of the working age. Courses for these studies will be available during the 2010–2011 academic year. Students will be notified of the possibility to take courses pertaining to employment during the 2009–2010 academic year.

## KEY LEARNING OUTCOMES

The national competences for the Degree Programme in Social Work were approved in 2006. The descriptions of the programme's study modules and courses contain the specific aims of learning for each module/course.

### *Ethical competence in social work*

A Bachelor of Social Services

- \* has internalised the prevailing values and professional ethics in social work and has committed him-/herself to abiding by them.
- \* is capable of the ethical reflection required for occupations in the field of social work.
- \* is competent in considering the uniqueness of each individual and acting appropriately in situations where there is a conflict of values.
- \* promotes equality and tolerance from the point of view of the individual, the community and the society, and strives to prevent people from becoming disadvantaged.

### *Competence in serving clients*

A Bachelor of Social Services

- \* is able to form a professional, empowering and collaborative relationship with clients.
- \* understands the needs of clients and the resources they possess.
- \* is competent in appropriately applying various theoretical approaches and methods and in evaluating them.
- \* possesses the expertise needed to purposefully support and guide clients and client groups in their everyday lives, in their different stages of growth and development and in different stages of their lives.

### *Competence in the social services system*

A Bachelor of Social Services

- \* knows the service systems and the associated legislation that support well-being and social security.
- \* is competent in perceiving changes in services and participating in diversely developing them.
- \* knows how to organise and direct necessary services to support clients, to work in multi-professional networks, and to provide consultation to others.

### *Competence in analysing society*

A Bachelor of Social Services

- \* understands the relationship between the individual and society and is competent in organising and analysing it from different theoretical perspectives.
- \* understands the relationship between the formation of people's social capacity and decision-making in society.
- \* is competent in classifying social problems in the societal frame of reference.

#### *Competence in reflective leadership and development*

A Bachelor of Social Services

- \* has internalised a reflective and investigative approach to work.
- \* is competent in evaluating their work from a theoretical perspective and applying alternative attitudes and approaches.
- \* possesses practical expertise in research and is competent in producing new information.
- \* has the ability to take initiative as a leader of a work community and works as an active member of the community.
- \* is competent in developing and managing expertise in social work, work communities and services in multi-professional collaboration.

#### *Societal competence and community influence*

A Bachelor of Social Services

- \* understands cultures and how communities function and, together with others, knows how to strengthen and create community and participation that supports citizenship.
- \* is competent in creating and working in various networks of citizens and officials.
- \* is able to participate in discussions pertaining to issues in society and to influence decision-making together with clients and other stakeholders.
- \* recognises structures that create inequality and works to dismember them.

## OCCUPATIONAL PROFILES

Bachelors of Social Services work in client service, management, projects and as entrepreneurs. The more common job titles in different areas of the profession include:

\* **Positions pertaining to education in social work:** Family counsellor, day-care teacher, educator, or youth counsellor. Bachelors of Social Services work in daycares, child protection agencies, family counselling, and schools, in preventive work and in certain special education positions.

\* **Positions pertaining to counselling and rehabilitation:** Social services counsellor, employment counsellor, project worker, employment consultant, or insurance secretary. Bachelors of Social Services work in institutions for the disabled, substance abusers and law offenders. They work with the elderly, the unemployed, youth, and immigrants. They work in the Social Insurance Institution of Finland, employment agencies and social services agencies.

\* **Positions pertaining to management and development:** Outpatient counsellor, activities director, director of an orphanage, or office director. Bachelors of Social Services work in positions of management and development in the various social-service sectors, organisations dealing with social work, as entrepreneurs, in projects, in the Social Insurance Institution of Finland, and in the labour administration.

Qualifications for kindergarten teachers: The Act on Qualification Requirements for Social Welfare Professionals (272/2005) and government decree (608/2005) state that a person working as a kindergarten teacher who possesses a degree in social welfare and health care is required to complete at least 60 credits of coursework in early childhood development and social pedagogy. Universities of applied sciences that offer studies in social welfare decided in 2007 that these studies should include theoretical studies in early childhood development and social pedagogy, practical pedagogic training and a final thesis.

Some of the students in the Degree Programme in Social Work at Seinäjoki UAS have the opportunity to structure their studies such that they acquire the qualifications described above. There are a limited number of courses available each year for obtaining the qualifications. Students are notified about the studies in early childhood development each year.

## ACCESS TO FURTHER STUDIES

Students who have completed this programme are eligible to continue on to a master's degree programme in social work and health care in a university of applied sciences or other institution of higher education. (University of applied sciences act 351/2003, in Finnish)

## COURSE STRUCTURE

The courses in the degree programme are available at SOSALA 2009 (1.9.2009), 210 cr

## EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

Regulations pertaining to the operations in universities of applied sciences

## CONTACT PERSONS

Head of the degree programme: Ms Päivi Rinne, tel. +358 20 124 5122, GSM +358 40 830 4190, e-mail: paivi.rinne@seamk.fi

ECTS departmental coordinator / International coordinator: Ms Helena Järvi, tel. +358 20 124 5125, GSM +358 40 830 4276, e-mail: helena.jarvi@seamk.fi  
 Student counsellor: Ms Katriina Honkala, tel. +358 20 124 5108, GSM +358 40 830 4186, e-mail: katriina.honkala@seamk.fi

## Degree Programme in Social Work (In Finnish) (1.9.2009) SOSALA 2009

Code	Name	Study Year				CR
		1.	2.	3.	4.	
KF08A	<b>BASIC STUDIES</b>					<b>61</b>
KF08AOA	<b>Learning skills</b>					<b>8</b>
KF08AOA0110	Studying at Polytechnic	x				3
KF08AOA0211	Information skills	x				2
KF08AOA0310	Information technology	x				3
KF08AVK	<b>Language studies</b>					<b>6</b>
KF08AVK0110	English	x				3
KF08AVK0310	Swedish		x			3
KF08AVI	<b>Finnish language and communication skills</b>					<b>6</b>
KF08AVI0500	Basics of written and oral communication	x				2
KF08AVI0600	Oral communication		x			2
KF08AVI0700	Academic writing				x	2
KF08AAK	<b>Professional development</b>					<b>11</b>
KF08AAK0110	Professional development	x				3
KF08AAK0210	Professional fields of social work and social services	x				3
KF08AAK0320	Analysis of contemporary practices in social work		x			2
KF08AAK0700	Ethics of social work	x				3
KF08AHO	<b>Social welfare and social participation</b>					<b>12</b>
KF08AHO0110	Individual in society	x				6
KF08AHO0121	Social, mental and health problems	x				6
KF08ASP	<b>Social services providing social security</b>					<b>18</b>
KF08ASP0110	Finnish society and economy	x				3
KF08ASP0410	Public, private and community-based social welfare services	x				4
KF08ASP0310	Legislation and social welfare	x				3
KF08ESP0810	Practical field period: Social services providing social security	x				8
KF08B	<b>PROFESSIONAL STUDIES</b>					<b>136</b>
KF08BHO	<b>Social welfare and social participation</b>					<b>12</b>
KF08CHO0510	Childhood and youth as a phase of life		x			9
KF08CHO0610	Work, living and basic security		x			9
KF08CHO0710	Ageing in life course		x			9
KF08CHO0810	Disability and handicap in the life course		x			9
KF08CHO0910	Substance abuse and criminal behaviour		x			9
KF08CHO1200			x			9

	Childhood and youth from the perspective of substance abuse (In English)					
KF08BHO1010	Contemporary society in theoretical frameworks				x	3
KF08BPS0	<b>Psychosocial and interactive social work methods</b>					<b>30</b>
KF08BPS0110	Basics of social work	x				3
KF08BPS0210	Psychosocial work		x			3
KF08BPS0410	Family work		x			4
KF08BPS0510	Case management		x			4
KF08CPS0610	Elementary education in day care		x			3
KF08CPS0710	Social work with elderly people		x			3
KF08CPS0810	Social work in social welfare agencies		x			3
KF08CPS0910	Social rehabilitation		x			3
KF08EPS1010	Practical field period: Psychosocial and interactive social work methods		x			10
KF08BYL	<b>Community work and creative methods</b>					<b>26</b>
KF08BYL0800	Creative activities 1		x			4
KF08BYL0900	Creative activities 2			x		4
KF08BYL0510	Project work			x		3
KF08BYL0610	Social work with groups			x		3
KF08BYL0710	Community work			x		3
KF08EYL0810	Practical field period: Community work and creative methods in social work			x		9
KF08BOK	<b>Organizing, managing and developing social services</b>					<b>27</b>
KF08BOK0110	Organizing social services			x		3
KF08BOK0210	Development, quality management and evaluation skills			x		5
KF08BOK0310	Management and leadership			x		4
KF08BOK0400	Entrepreneurship in social services			x		3
KF08EOK0410	Practical field period: Organizing, managing and developing social services			x		12
KF08BVS	<b>Empowerment methods in social work</b>					<b>12</b>
KF08BVS0130	Social work and multicultural groups			x		3
KF08BVS112	Social work and multicultural groups (In English)			x		3
KF08BVS0210	Critical and radical social work				x	3
KF08EVS0310	Practical field period: Empowering methods in social work				x	6
KF08BST	<b>Social research</b>					<b>29</b>
KF08BST0110	People and community as source of information	x				2
KF08BST0210	Qualitative research methods	x				3
KF08BST0310	Quantitative research methods		x			3
KF08BST0510	Action research			x		2
KF08BST0630	Professional essay		x			4
KF08BST0710	Thesis				x	15
KF00D	<b>OPTIONAL STUDIES</b>					<b>13</b>
KF08DVV0110	Basics of Social Care	x				2
KF08DVV0410	Special education		x			2



KF08DVV0310	Crisis intervention in social work		x			2
KF08DVV1510	Mental health work		x			2
KF08DVV0210	Youth work		x			2
KF08DVV0520	Special education		x			3
KF08DVV1200	Childhood and youth from the perspective of substance abuse, literature (In English)		x			3
KF08DVV0800	Ageing in the life course, literature		x			3
KF08DVV0600	Childhood and youth as a phase of life, literature		x			3
KF08DVV1300	Mental health, literature		x			3
KF08DVV1000	Substance abuse and criminal behaviour, literature		x			3
KF08DVV0700	Work, living and basic security, literature		x			3
KF08DVV0900	Disability and handicap in the life course, literature		x			3
KF08DVV1400	Parenthood and breeding		x			3

## Study Descriptions

### Learning skills, 8 op KF08AOA (study entity)

Objectives: Students will be familiar with the study methods that are used in the social services programme at the Seinäjoki UAS. They will be aware of the current issues concerning the social work and health programme in their school and in Seinäjoki UAS in general. Students will be adept in applying their skills in information retrieval and IT to their studies and work.

### Studying at Polytechnic, 3 op KF08AOA0110 (study unit)

#### Lecturers

Group supervisors

#### Objectives

Students will become familiar with the information significant to the progress of their studies, i.e. in making a Personal Study Plan and studying in the university community. They will understand the pedagogic foundations of teaching in universities of applied sciences. Students will be aware of the qualifications required in their profession and issues concerning employment.

#### Content

- Structure of the Degree Programme in Social Work
- Planning one's studies
- Perspectives on learning
- Current issues in the School of Healthcare and Social Work in Seinäjoki
- Current issues concerning the Bachelor of Social Services programme
- Students affairs
- Applying for a job and information concerning the labour market
- Familiarisation with the tools needed in online communication: Moodle, e-mail, and Winha

#### Literature / Study Material

Study Guide, curriculum and additional materials, 'network rucksack'

#### Learning Methods

- Lectures, online teaching, group work, visits by experts, participation in events in the school and at Seinäjoki UAS
- Moodle

#### Assessment

Active participation in all areas of the course: pass/fail

## **Information skills, 2 op KF08AOA0211 (study unit)**

### *Lecturers*

Suovalkama Petri, MSSc

### *Objectives*

Upon completion of the course, students will understand the information retrieval process as a whole such that they will be competent in analysing their information needs and choosing appropriate sources of information. They will have command of the basic techniques for obtaining information and know how to apply their knowledge.

### *Content*

- Library and information services at Seinäjoki UAS
- Information and producers of information in the field of social services
- Databases and how to use them
- Online information searches
- Evaluating and using information

Some of the first-year studies have been integrated into the Social Services as a Profession course. Third-year studies take place at the beginning stages of the thesis writing process and concentrates on the theory and research information needed for it.

### *Literature / Study Material*

Material distributed by the lecturer

### *Learning Methods*

Lectures, discussions, group and pair work, assignments

### *Assessment*

Assignments and active participation: pass/fail

### *Languages of Instruction*

Finnish

### *Further Information*

Teaching is divided into two parts, R&D course

## **Information technology, 3 op KF08AOA0310 (study unit)**

### *Lecturers*

Latva-Somppi Hilkka, MA

### *Objectives*

Students will become acquainted with the equipment, software, various online services and the online learning environment in Seinäjoki UAS. Students will have command of writing and sending e-mails, Winha student administration programme, Word, Excel and PowerPoint and Moodle. They will also be able to apply their basic data processing skills to new equipment and software environments and promote the use of data processing later on in their professional field.

### *Content*

- Data processors used at the unit, facilities, procedures and agreements
- Using equipment, adaptation of user environment
- E-mail, Winha, Moodle, Internet, search engines, Microsoft Word, Excel and Power Point

### *Literature / Study Material*

Hand-outs and online material

### *Learning Methods*

Lectures, online teaching, assignments, exams.

### *Assessment*

- Lectures, online exercises, online teaching (50 %), exams.
- Grading based on a scale of 1–5

## **Language studies, 6 op KF08AVK (study entity)**

Objectives: Students will develop their oral and written skills in the English and Swedish languages. They will become acquainted with the central concepts of social welfare work, and they will acquire language skills required for their professional development.

### **English, 3 op KF08AVK0110 (study unit)**

#### *Lecturers*

Heinonen Mari, MA

#### *Objectives*

Students will develop and strengthen their English language skills in oral communication, listening comprehension and writing. They will learn the essential professional vocabulary and understand texts concerning the social welfare field. They will be able to discuss social welfare issues in English.

#### *Content*

- Telling about one's education, professional field and the Finnish social welfare system in English
- Articles related to different age groups and their social problems
- International and cultural understanding from the point of view of social welfare
- Essay

#### *Literature / Study Material*

- Saarinen K.&Saarinen J. 2008. Way to Welfare: English for Social Services. Tammi.
- Lecturer's material
- Newspapers, magazines, AV material

#### *Learning Methods*

Contact teaching, independent study, oral tasks and writing tasks

#### *Assessment*

- Active participation in the study process. Tests in reading comprehension, oral communication, essay
- Grading based on a scale of 1–5

### **Swedish, 3 op KF08AVK0310 (study unit)**

#### *Lecturers*

Store Jaana, MA

#### *Objectives*

During the course, the students will strengthen their Swedish language skills in oral and written communication. Students will understand texts and speech related to social welfare issues. Students will complete an official Swedish test that has both written and oral skills sections.

#### *Content*

- Telling about one's education, professional field and duties: working with clients, giving instructions and talking in the telephone
- Familiarisation with articles pertaining to social welfare work and writing summaries of the articles in Swedish
- Discussions based on themes given by the teacher and the students
- Official language test in Swedish

#### *Literature / Study Material*

- Tuunanen M. & Wallinheimo K. 2008. Flexsocial. Svenska för högskolor. Otava.
- Material provided by the lecturer
- AV material, newspapers and professional magazines

#### *Learning Methods*

Contact teaching, independent study, drama presentations

#### *Assessment*

Study Descriptions

- Active participation in the lessons
- Tests in oral and written communication
- Grading based on a scale of 1–5

## **Finnish language and communication skills, 6 op KF08AVI (study entity)**

**Objectives:** Students will be competent in purposefully communicating in situations associated with study and work. They will be familiar with grammatical correctness, compiling documents and academic writing. They will be competent in interacting during discussions, meetings and negotiations. Students will recognise the communicative environment in professional social work and social services. They will have a positive attitude toward developing communication skills in their work.

## **Basics of written and oral communication, 2 op KF08AVI0500 (study unit)**

### *Lecturers*

Katariina Punkari

### *Objectives*

Upon completion of the course, students will be competent in communicating objectively about study and work. They will demonstrate knowledge and understanding of grammatical norms in the Finnish language, the processive character of writing, and of various characteristics of texts and styles. Students will be familiar with the basics of academic communication and documents and be able to compile the more common documents. Students will also be competent in participating in discussions, meetings and negotiations in a proper way.

### *Content*

- Preparing to communicate through speech
- Acting in communicative situations
- Evaluating the communication process
- Interaction, verbal and nonverbal communication, demonstrative techniques
- Argumentation, meetings, negotiations
- Planning a text, the writing process, revising texts
- Citation and the bibliography

### *Literature / Study Material*

- Repo, I & Nuutinen, T. 2003. Viestintätaito: opas aikuiskoulutuksen ja työelämän vuorovaikutustilanteisiin. Otava. pp. 1–140
- Additional material announced by the lecturer

### *Learning Methods*

Lectures, oral and written exercises, writing an essay

### *Assessment*

The grade for the course will consist of taking part in lectures, completing exercises, writing an essay and an exam. Evaluation is based on a scale of 1 to 5.

## **Oral communication, 2 op KF08AVI0600 (study unit)**

### *Lecturers*

Laru Riitta, LA

### *Objectives*

Upon completion of the course, students will understand communication as a multi-faceted phenomenon. They will be capable of diversely utilising their communication skills while functioning in meetings and negotiations. Students will have command of argumentation in different situations. They will be familiar with the ways to communicate with clients/patients in the field of social welfare.

### *Content*

Oral skills: communication in groups, democratic dialogue, argumentation, speeches, debates, meetings, discussions. Special situations and questions connected to meeting the clients in social work will be discussed during the study course.

### *Literature / Study Material*

Repo, I & Nuutinen, T. 2003. Viestintätaito: opas aikuisopiskelun ja työelämän vuorovaikutustilanteisiin. Otava, pp.

141–306

- Lecturer's material

*Learning Methods*

Contact teaching, oral exercises, independent study, exam

*Assessment*

- Participating in the introductory lectures
- Active participation in lectures and exercises, independent study and exam
- Grading based on a scale of 1–5

## Academic writing, 2 op KF08AVI0700 (study unit)

*Lecturers*

Laru Riitta, LA

*Objectives*

Having successfully completed this course, students will be competent in writing academic texts and using the concepts related to social work. They will be familiar with the special characteristics of academic texts and the writing process. Students will have command of the grammatical forms of language. They will also be familiar with the foundations of managerial communication.

*Content*

- Academic writing
- Types of academic texts
- Argumentation and grounds for it
- Writing process in different phases of research
- Editing research for a thesis
- Grammatical norms in the Finnish language
- Conventions for the maturity test
- Documentation of decisions and related texts
- Job applications and CVs

*Literature / Study Material*

- Hirsjärvi S., Remes P & Sajavaara P. 2009 or earlier edition. Tutki ja kirjoita. Tammi
- Repo I & Nuutinen T. 2003. Viestintätaito: opas aikuisopiskelun ja työelämän vuorovaikutustilanteisiin. Otava.

*Learning Methods*

- Chiefly online learning
- Lectures, online assignments, journal
- Independent information searches related to the field

*Assessment*

- Active participation in lectures
- Approved test on grammatical correctness
- Online assignments and exercises
- Journal
- Numerical grading 1–5

*Prerequisites*

Taking part to the course requires that students possess basic knowledge of working online.

*Further Information*

R&D course

## Professional development, 3 op KF08AAK0110 (study unit)

*Lecturers*

Group supervisors

*Objectives*

Students will comprehend the reflective character of social work. They will acquire the capability to understand and to set objectives for their professional development during their studies and later on in the working world. Students will possess facilities for reflective thinking, and they will gain skills for giving and receiving feedback and being a participating member of a group.

*Content*

- Self-knowledge
- Participation in a group
- Professionalism
- Expertise and job descriptions for Bachelor of Social Services
- Chrystallizing one's personal and professional strengths, innovating future career paths and recruitment into the working world

*Literature / Study Material*

- Material distributed by the lecturer in addition to material students have acquired themselves
- Moodle

*Learning Methods*

Introductory lectures, group sessions, discussions with supervising teacher, personal portfolio and presentation of it.

*Assessment*

Active participation in group sessions, preparation for personal discussions and target-oriented construction of portfolio. The course is evaluated on a pass/fail basis.

## **Professional fields of social work and social services, 3 op KF08AAK0210 (study unit)**

*Lecturers*

Group supervisors

*Objectives*

Students will be able to analyse the development of social work practices within a historical framework and recognise the processes in society to which professional practices are connected. They will be able to situate their education, and the qualifications it renders, to the professional field of social work and social services. They will be well-educated in all of the professional areas associated with social work.

*Content*

- History of social work
- Work of a professional in social services
- Familiarisation with the typical areas of practical social services work

*Literature / Study Material*

- To be announced at the beginning of the course
- Instructions for filling out the occupation analysis: <http://intra>

*Learning Methods*

- Introductory lectures
- Filling out an occupation analysis and discussing it in a seminar
- Visits to various social institutions
- Moodle

*Assessment*

- Active participation in the lessons
- Filling out and presenting a occupation analysis
- Familiarisation with the work of a social services professional as agreed upon with the supervisor
- Pass/fail

## **Analysis of contemporary practices in social work, 2 op KF08AAK0320 (study unit)**

*Lecturers*

Lecturers in the social services sectors

*Objectives*

Students will possess the capacity to analyse contemporary working practices and processes in social work and social services, e.g. from the perspective of the goals of social work, working methods and the work environment. They will also have the facilities to analyse how selected working methods correspond to and reflect the needs of clients. The analysis pertains especially to the area in the social services sector chosen by the student.

*Content*

- Analysis of work processes: target, methods, ethics, co-operative organisations, legislation, resources
- Evaluation of professional processes
- Analysis of contemporary work processes is associated with the practical training period: psychosocial and interactive social work methods
- Analysis as a learning assignment during the practical training

*Literature / Study Material*

- To be announced at the beginning of the course
- Instructions for doing the assignment (in Finnish): <http://intra>

*Learning Methods*

- Introductory lectures
- Filling out and presenting a professional analysis in a seminar in the sector group
- Moodle

*Assessment*

Pass/fail

*Prerequisites*

- Areas of Social Welfare
- Studies pertaining to social services sectors

## **Ethics of social work, 3 op KF08AAK0700 (study unit)**

*Lecturers*

- Eeva-Kaija Martin, MA: groups 16a, 16b, 16d
- Mirva Siltakorpi, MSc: groups 16c and asosko 16

*Objectives*

Having successfully completed this course, students will understand basic ethical themes and understand their significance. They will have command of basic ethical concepts and theories. They will understand the development of morality and principles of professional ethics. Students are able to apply the principles of sustainable development in their actions. Students will be used to diversity and thinking independently. They will be competent in analysing issues related to ethics in the field of social welfare and in arguing in favour of their own opinions.

*Content*

- Ethics, morale, values
- Ethical theories
- Development of morality
- Sustainable development and social responsibility
- Professional ethics
- Personal ethics
- Experiences by students

*Literature / Study Material*

- Juujärvi S. & Myyry L. & Pesso K. 2007. Eettinen herkkyyden ammatillisessa toiminnassa. Gummerus kirjapaino.
- Arki, arvot, elämä, etiikka. Sosiaalialan ammattieettiset ohjeet. 2005. [www.talentia.fi](http://www.talentia.fi).
- Lastentarhanopettajan ammattietiikka. 2004. [www.lastentarha.fi](http://www.lastentarha.fi)
- Lecturer's material

*Learning Methods*

- Lectures, discussions and exercises in small groups, assignments, guest speakers
- Online learning in Moodle involving theme-based discussions and independent study.

*Assessment*

- Active participation, exam (50 % of assessment) and preparation of group assignments and exercises
- Online studies: active participation and independently produced written exercise
- Grading based on a scale of 1–5

## **Social welfare and social participation, 12 op**

### **KF08AHO (study entity)**

Objectives: Students will have command of the important theoretical concepts concerning the relationship between the individual, community and society. They will be familiar with the common social problems and the national health and mental health issues, which hinder the various areas of well-being, cause disability in functioning and passiveness.

## **Individual in society, 6 op**

### **KF08AHO0110 (study unit)**

*Lecturers*

- Riitta Ranta, MSc
- Mirva Siltakorpi, MSc
- Kerttu Veikkola, MSc

*Objectives*

Upon completion of the course, students will be familiar with basic theoretical concepts associated with the relationship between the individual and society, e.g. well-being, ability to function and social participation. Students will be capable of identifying people's needs from many perspectives and understand how the relationship between the individual and society is manifested in different contexts. The student has conceptual tools to analyse phenomena in modern society.

*Content*

Relationship between individual and society and the needs of people: growth and development, socialization, well-being and life course, health and ability, social participation and citizenship

*Literature / Study Material*

- Näkökulmia kehityopsykologiaan: kehitys kontekstissaan. 1995. WSOY OR
- Lapsesta aikuiseksi. 1996. Atena
- Saaristo K. & Jokinen K. 2004. Sosiologia. WSOY
- Järvikangas A. & Härkäpää K. 2004. Kuntoutuksen perusteet. WSOY
- Jyrkämä J. 2003. Ikääntyminen, toimintakyky ja toimintatilanteet. In Seniori- ja vanhustyö arjen kulttuurissa 2003. PS-kustannus
- Heikkinen E. 2002. Sairauksista toimintakykyyn. In Vanhuuden voimavarat. 2002. Tammi
- Vanheneminen ja terveys. 2007. Hoitotieto

*Learning Methods*

Lectures, working in small groups (drama included), reflection, learning circle and independent assignment The course is online for students in adult education.

*Assessment*

- Active participation during the course
- Grading based on a scale of 1–5

## **Social, mental and health problems, 6 op**

### **KF08AHO0121 (study unit)**

*Lecturers*

- Kristiina Järvi, MSSc
- Riitta Ranta, MSc
- Kerttu Veikkola, MSSc

*Objectives*

Students will become familiar with the mechanisms causing social, mental and health problems and the impact of those



mechanisms on the well-being of one's immediate community, daily activities and ability to function. Students will understand the impacts of social, physical and psychological problems on the individual, community and society. They will be aware of the factors that influence preventive work.

### *Content*

- Social exclusion, poverty, deviant behaviour
- Illness (e.g. diabetes, dementing illnesses, cardiovascular illnesses, cancers, accidents) and pain
- Depression, neurosis, psychosis, psychopathy, burn-out
- Promoting good health and mental health and prevent social problems

### *Literature / Study Material*

- Eriksson E. & Arnkil. T. E. & Rautava M. 2006. Ennakointidialogeja huolten vyöhykkeellä?: verkostokonsultin käsikirja – ohjeita verkostomaiseen työskentelyyn. Stakes (assigned parts). Also available online
- Kortteinen M. & Tuomikoski H. 1998. Työtön: tutkimus pitkäaikaistyöttömien selviytymisestä. Tammi
- Sosiaalialan kehittämishankkeen loppuarviointi. Osa raportti 2. Ministry of Social Affairs and Health 2008. (assigned parts). Also available online
- Valtioneuvoston periaatepäätös Terveys 2015 –kansanterveysohjelmasta. 2001. Ministry of Social Affairs and Health 2008. Also available online
- Sosiaali- ja terveystietomus 2006. Ministry of Social Affairs and Health 2008. Also available online
- Suomalaisten terveys. 2005. (pp. 153–177, 190–199, 222–228, 242–257). Duodecim
- Jaatinen K. M. & Raudasojä J. 2007. Kansamme taudit (pp. 7–29). WSOY
- Mielenterveys- ja päihdetyö: yhteistyötä ja kumppanuutta. 2007. (pp. 7–29). WSOY

### *Learning Methods*

Lectures, problem-based group work, guest speakers and field trips.

### *Assessment*

- Group assignment, exam, active participation
- Grading based on a scale of 1–5

## **Social services providing social security, 18 op KF08ASP (study entity)**

Objectives: Students will understand the model for producing social welfare services and its traditions in Finnish society as well as for financing these services in a global environment. They will perceive the roles of social insurance, social welfare and social services as part of the realm of social security. With regard to social welfare, students will be familiar with private and third-sector operations models, and they will understand the essential parts of social welfare legislation. During practical training, students will gain a comprehensive understanding of social security, how sufficient it is and how well it works with regard to customer needs.

## **Finnish society and economy, 3 op KF08ASP0110 (study unit)**

### *Lecturers*

- Arja Haapaharju Arja, BSSc
- Katriina Honkala, MBA
- Elina Kangasluoma, MSSc
- Marja-Liisa Saariaho, MSSc
- Sinikka Volanto, MSc

### *Objectives*

Upon completion of the course, students will be aware of the development of Finnish society and social policy and identify the structures and mechanisms, which create or have created social problems in different historical periods. Students will be competent in analysing the factors that have affected the development of society and social policy. They will have command of the more significant concepts in social policy and the national economy. Students will understand the basic theories associated with national economy, know how to apply them economic decision-making and to the evaluation of the development of the national economy. Students will also learn about cause and effect relationships in the national economy and understand economic phenomena in social policy.

### *Content*

- Historical development of Finnish society and social policy
- Areas of social policy
- Implementing social policy

- Economic policy
- Structure and function the national economy
- Public economy
- Current issues in social policy
- Economic policy in various sources of information

#### *Literature / Study Material*

- Karisto A. & Takala P. & Haapola I. 1998. Matkalla nykyaikaan. Elintason, elämäntavan ja sosiaalipolitiikan muutos Suomessa. WSOY
- Raunio K. 1995. Sosiaalipolitiikan lähtökohdat. Gaudeamus
- Pekkarinen J. & Sutela P. 2000. Mikrosta makroon. WSOY; Talouden kieli –videosarja (assigned parts)
- Current issues/news pertaining to social and economical policies

#### *Learning Methods*

Contact teaching, working in small groups, videos

#### *Assessment*

- Essay based on current news, group work
- Grading based on a scale of 1–5

#### *Further Information*

The following courses are held together:

- Finnish Society and the Economy
- Social Welfare Legislation
- Public, Private and Community Services

## **Public, private and community–based social welfare services, 4 op KF08ASP0410 (study unit)**

#### *Lecturers*

- Arja Haapaharju, BA (Soc. Sc)
- Katriina Honkala, MBA
- Elina Kangasluoma, MSSc
- Marja–Liisa Saariaho, MSSc
- Sinikka Volanto, MSc (Pol. Sc.)

#### *Objectives*

Upon completion of the course, students will identify the roles of social insurance, social welfare and social services in the framework of social security. They will be able to distinguish public, private, and third sector services as entities providing security and their relationship to each other. They will possess knowledge of the contents, extensiveness, principles and operation models of those entities. Students will be aware of the importance of various service providers as a part of a functional service system.

#### *Content*

- Perception of the social security system as a whole
- Social welfare and social services
- Principles applied in social welfare
- Public services
- Private services
- Third sector as provider of services

#### *Literature / Study Material*

- Kari M. 2005. EU ja jäsenmaiden sosiaaliturvajärjestelmät. Online publication
- Välittävät verkostot. 1996. Vastapaino. (pp.11–29)
- Hyvinvoinnin arjen asiantuntijat: sosiaali– ja terveysjärjestöt uudella vuosituhannella. 2003. PS–kustannus
- Puurunen 2004. Suomalainen hyvinvointiyhteiskunta tienhaarassa. University of Joensuu, Karelian Institute
- Sosiaali– ja terveydenhuollon lakisääteiset palvelut. Ministry of Social Affairs and Health essay 2005:7
- Sosiaalihuolto Suomessa. Ministry of Social Affairs and Health essay 2006:11
- Sosiaalipalvelut kunta– ja palvelurakenneuudistuksessa. Association of Finnish Local and Regional Authorities. Online publication 2006
- Suomen sosiaaliturvan pääpiirteet. Ministry of Social Affairs and Health essay 2007:9
- Toimeentuloturva kehdestä keinutuoliin. Ministry of Social Affairs and Health essay 2007:10

### *Learning Methods*

- Lectures, group work, field trips, guest speakers
- Students in the adult education do an assignment in advance

### *Assessment*

- Literary and lecture material, group work, independent study, participation in field trips
- Grading based on a scale of 1–5

### *Further Information*

The following courses are held together:

- Finnish Society and the Economy
- Social Welfare Legislation
- Public, Private and Community Services

## **Legislation and social welfare, 3 op KF08ASP0310 (study unit)**

### *Lecturers*

- Arja Haapaharju, BSSc
- Katriina Honkala, MBA
- Elina Kangasluoma, MSSc
- Marja-Liisa Saariaho, MSSc
- Sinikka Volanto, MSc

### *Objectives*

Upon successful completion of the course, students will be familiar with the most essential points of legislation in Finland's social welfare field and the duties of social welfare professionals as regards legislation. Students will also be familiar with legislation processes, finding legislative information and applying the more common laws in practise as a social services professional.

### *Content*

- Finding and using legislative information
- Legislative principles in social welfare
- Duty of secrecy
- Social Welfare Act, legislation pertaining to customers in social welfare, legislation pertaining to welfare subsidies, legislation pertaining to services for the disabled, Mental Health Act, legislation pertaining to rehabilitation for substance abusers, legislation pertaining to paternity, child support, custody, visiting rights and child protection legislation, EU's social policy legislation

### *Literature / Study Material*

- Sosiaali- ja terveyspalvelujen lainsäädäntö käytännössä. 2006. Tietosanoma Oy (assigned parts)
- Taskinen S. 2007. Lastensuojelulaki (417/2007): soveltamisopas. Stakes (assigned parts)
- Tuori K. 2004. Sosiaalioikeus. WSOY lakitieto (assigned parts)
- Sorvari H. 2001. Asiakastiedon suoja sosiaalihuollossa. Tammi
- Asiakirjajulkisuus ja tietosuoja sosiaali- ja terveydenhuollossa. 2005. Edita
- Pajukoski M. 2004. Sähköinen asiointi sosiaali- ja terveydenhuollossa: lainsäädännön rajat ja mahdollisuudet. Stakes
- Additional material and web links given by the teacher

### *Learning Methods*

- Lectures, independent study, group work, guest speakers
- Online studying: contact teaching and exercises in the online environment

### *Assessment*

- Active participation, exam
- Online assignments
- Numerical grading 1–5

### *Further Information*

The following courses are held together:

- Finnish Society and the Economy
- Social Welfare Legislation
- Public, Private and Community Services

## **Practical field period: Social services providing social security, 8 op KF08ESP0810 (study unit)**

### *Lecturers*

- Group 16a: Kristiina Järvi, MSc and Marja-Liisa Saariaho, MSc
- Groups 16b, 16c ja 16d: Arja Haapaharju, BSc, Elina Kangasluoma, MSc, Riitta Ranta, MSc and Katriina Honkala, MBA
- Group asosko 16: Katriina Honkala Katriina, MBA

### *Objectives*

Upon completion of the practical training, students will have an understanding of the issues that influence people's everyday life, the circumstances in which they live, and their types of needs they have as regards support and assistance. They will be familiar with the available support systems and professional principles to meet the needs of individuals and how public, private and community-based services respond to these needs. Students will be capable of viewing services as a whole, how they function, and whether or not they are carried out ethically.

### *Content*

- Familiarisation with the organisation in which one is training: business idea, structures and settings for operation, legislation, personnel
- Familiarisation with the range of clients and how they use the services
- Familiarisation with the everyday life, social networks and participation of clients and service users
- Social services and social welfare operations available to clients in their home community

### *Literature / Study Material*

Practical training instructions (in Finnish): <http://intra>

### *Learning Methods*

Introductory lectures, completion of the practical training, assignments and feedback discussions

### *Assessment*

Assessment is carried out following the objectives that each student has set for her/his practical training and those which are stated in the curriculum. The training is graded on a pass/fail basis.

## **Social welfare and social participation, 12 op KF08BHO (study entity)**

- Objectives: Students will gain insight into the factors that influence the social welfare, ability to function and active participation of people, how these factors manifest in people's lives, and the threats to these factors. Students will be competent in professionally understanding a person's social circumstances and needs for support. They will be familiar with the significance of services and benefits it supporting various types of clients. Students will form a point of view about the factors influencing individuals' relationship to society in the light of current social theory.
- Students choose a sector of social welfare in which to study. These sectors are described hereafter. Students also study in the following courses, which are connected to the sector they have chosen: Writing a Professional Essay (KF08BST0600), Analysis of Contemporary Practices on Social Work (KF08AAK0311), Psychosocial and Interactive Methods in Social Work (KF08EPS1010). Students also do practical training and take optional courses.

Students' solid knowledge of client groups is the essential foundation for further methodological studies, which are helpful with regard to the chosen client group. Students choose the sector in which they wish to study at the beginning of their second year of studies at the latest.

## **Childhood and youth as a phase of life, 9 op KF08CHO0510 (study unit)**

### *Lecturers*

- Eeva-Kaija Martin, MA
- Kerttu Veikkola Kerttu, MSc

*Objectives*

Students will be familiar with activities and social participation of the individual from the point of view of the growth, development, learning and social welfare of children and adolescents. They will have a comprehensive understanding of the processes that support favourable development and continuity in the everyday life of children, adolescents and families in Finland. They will be competent in analysing problematic issues and needs for support. Students will be familiar with issues concerning the lifestyles of adolescents and youth culture and the forms of support needed by young people. Students will be familiar with the social service system and social welfare subsidies from the point of view of children, adolescents and their families.

*Content*

- Theories about childhood
- Factors affecting the growth and development of children
- Family, day care and foster care as environments for living
- Learning disabilities and school attendance
- Child welfare, risk of social exclusion
- Lifestyles of adolescents and youth culture
- Social services and social welfare subsidies for families with children
- Support services for adolescents

*Literature / Study Material*

- Lapsiperheiden hyvinvointi. 2009. THL
- Päivähoidosta varhaiskasvatukseen. 2007. Edufin
- Kronqvist E–L. & Pulkkinen M–L. 2007. Kehityopsykologia. Matkalla muutokseen. WSOY
- National online service for early childhood development: [www.stakes.fi/varttua](http://www.stakes.fi/varttua)
- Viittala K. 2006. Lasten yhteinen varhaiskasvatus: erityisestä moninaisuuteen. Tampere University Press
- Hoppo I. 2008. Sosionomin (AMK) osaaminen ja osaamishaasteet varhaiskasvatuksessa. In 14 puheenvuoroa sosionomien (AMK) asemasta Suomen hyvinvointiasiantuntijajärjestelmässä. 2008. Kemi–Tornio University of Applied Sciences. pp. 99–114
- Menetyksistä mahdollisuuksiin. 2008. Perhehoitoa lasten ja vanhemmuuden tueksi. Ps–kustannus
- Pösö T. 2004. Vakavat silmät ja muita kokemuksia koulukodista. Stakes
- Finnish Youth Co–operation Allianssi online service: [www.alli.fi](http://www.alli.fi)
- Additional material given by the teacher(s)

*Learning Methods*

Workshop–style learning: activating lectures, guest speakers, field trips, co–operative learning, working in small groups, independent study based on literature, exam, co–operative assignment, discussions, personal journal. Assignment given in advance.

*Assessment*

Assessment consists of the following parts: assignment (before the course), active participation in workshop, activity implemented by the group, independent assignments, journal, exam concerning social welfare. Grading based on a scale of 1–5.

*Prerequisites*

Students should have most of their Basic Studies and practical period completed.

## **Work, living and basic security, 9 op KF08CHO0610 (study unit)**

*Lecturers*

Mirva Siltakorpi, MSSc

*Objectives*

Upon completion of the course, students will be competent in analysing and defining the factors which may support well–being and social security among adult people or may cause problems. Students will know how to set goals for their professional activities, especially those associated with adults and their needs. They will also be familiar with the types of social security benefits available and know how to allocate them in the employment, social welfare and basic security sectors.

*Content*

Students will analyse individuals' relationship to society using the following concepts from the perspective of social welfare and social participation: basic social security, employment and unemployment, debt and poverty, health and sickness. Knowledge arising from people's experience is utilised in the course, and the more important social welfare benefits, as well as living and basic securities are explored.

*Literature / Study Material*

- Pääsy kielletty! Poiskäännyttämisen politiikka ja sosiaaliturva. 2007. Stakes
- Köyhyys ja hyvinvointivaltion murros. 2000. Gaudeamus
- Jokinen E. 2005. Aikuisten arki. Gaudeamus
- Suuret ikäluokat. 2005. Vastapaino
- Inhimillinen turvallisuus. 2000. Vastapaino
- Raunio K. 2006. Syrjäytyminen: sosiaalityötä kiinnostavia näkökulmia. Sosiaali- ja terveysturvan keskusliitto
- Lapsiperheiden hyvinvointi. 2009. Terveiden ja hyvinvoinnin laitos
- Arkipäivän kokemuksia köyhyydestä. 2007. Avain
- Elämäni tarina. 2000. Lukemisto lapsuuden kokemuksista lastenkodissa ja perhehoidossa. Stakes
- Komppa J. 2001. Minä olen. Atena
- Korhonen R. 2003. Kahden ja yhden yön tarinoita. Sammakko
- Rantala R-S. 2005. Optimisti: äänetön monologi. Like
- Sahlberg A. 2001. Eksyneet. WSOY
- Salonen J. 2006. Enkelit eivät itke. FinnEpos

### *Learning Methods*

Workshop: lectures, discussions, group assignments during lessons, guest speakers. Learning assignment completed in advance.

### *Assessment*

The assessment consists of the following parts: assignment (before the course), participation in workshop, the output of the workshop, independent assignment, participation in the reading circle.

### *Prerequisites*

Students should have most of their Basic Studies and practical period completed.

## **Ageing in life course, 9 op KF08CHO0710 (study unit)**

### *Lecturers*

Riitta Ranta, MSc

### *Objectives*

After successfully completing the course, students will be able to formulate their personal opinion about aging as an personal, communal and societal phenomenon. They will understand old age as a unique phase of life. They will also understand the factors and environments that affect how aging is experienced, the everyday abilities of the elderly, their social participation and living conditions. Students will have a positive attitude toward the elderly as individuals, members of a family and as citizens. They will be familiar with the network of services available to the elderly and know which services are appropriate for each individual case. Students will be competent in obtaining information and purposefully learning about aging, and they will be able to evaluate their learning as an individual and as the member of a team.

### *Content*

- Concepts associated with old age
- Understanding of old age
- Aging
- Living environment, ways of living
- Daily activities of the elderly
- Elderly lifestyles
- Hobbies of the elderly and social participation
- Illnesses, e.g. dementing diseases
- Death and dealing with death
- Elderly and social security services

### *Literature / Study Material*

- Vanhuuden voimavarat. 2000. Tammi
- Vanheneminen ja terveys. 2007. Edita. (pp. 1–214.)
- Muistihäiriöt. 2004. Helsinki: Duodecim
- Kurki L. 2007. Innostava vanhuus: sosiokulttuurinen innostaminen vanhempien aikuisten parissa. Helsinki: Finnlectura.

### *Learning Methods*

- Assignment in advance
- Workshops
- Lectures

- Guest speakers
- Reading circles
- Field trips
- Independent study
- Small-group work
- Journal

#### *Assessment*

Assignment given in advance, test on social welfare subsidies, exam, active participation in workshop and reading circles, and journal. Grading based on a scale of 1–5.

#### *Prerequisites*

Students should have most of their Basic Studies and practical period completed.

### **Disability and handicap in the life course, 9 op KF08CHO0810 (study unit)**

#### *Lecturers*

- Kristiina Järvi, MSSc
- Marja-Liisa Saariaho, MSSc

#### *Objectives*

Students will be familiar with the concept of disability from following perspectives: mental disabilities, sensory disabilities, physical disabilities and communication disorders. Students will be competent in analysing and defining the processes that enhance welfare and social participation, and they will be familiar with the processes that may cause problems and marginalisation. Students will be competent in dealing with people with disabilities, and they will understand the concept of being different from the point of view of the individual, the community and the society. Students will be familiar with the social welfare benefits available to people with disabilities and how to allocate them. They will also be able to define professional work as it relates to the disabled especially.

#### *Content*

- Mental, sensory and physical disabilities
- Communication disorders
- Impact of disability on one's life
- Socialisation, divergence and social participation
- Rehabilitation and special education
- Social welfare benefits

#### *Literature / Study Material*

- Malm M., Matero M., Repo M. & Talvela E-L. 2004. Esteistä mahdollisuuksiin: vammaistyön perusteet. WSOY
- Määttä P. 1999. Perhe asiantuntijana. Atena
- Stenros N. 2008. Signmark. Otava
- Lampinen R. 2007. Omat polut! Vammaisesta lapsesta täysivaltaiseksi aikuiseksi. Edita Prima Oy
- Kerola K., Kujanpää S. & Timonen T. 2009. Autismin kirjo ja kuntoutus. PS-kustannus

#### *Learning Methods*

Assignment in advance, workshops and working in small groups, independent assignments, reading circles, guest speakers, lectures, co-operative tasks, field trips, journal.

#### *Assessment*

Assignment (before the course), independent assignment, active participation in workshop, journal. Grading based on a scale of 1–5.

#### *Prerequisites*

Students should have most of their Basic Studies and practical period completed.

### **Substance abuse and criminal behaviour, 9 op KF08CHO0910 (study unit)**

#### *Lecturers*

- Tiina Kohtamäki, MA
- Anna-Kaarina Koivula, MSSc

*Objectives*

Upon completion of the course, students will be familiar with the abilities of individuals to function and social participation from the perspective of substance abuse and criminal behaviour. They will be competent in analysing the causes and effects of substance abuse and the consequences it has on an individual's behaviour in the community and society. Students will be trained in critical and analytical observation and information acquisition as well as in reflecting on their own understanding of substance use and abuse, and crime. They will also be familiar with the social welfare benefits that pertain to substance users and how those benefits can be applied. Students will be familiar with the principles of criminal care.

*Content*

Analyzing the individual's relationship to society using the following concepts: deviation, social exclusion, sub-cultures, legality, illegality, criminal behaviour drugs, causes and effects of substance abuse and criminal behaviour from the perspective of the individual, community and society, prevention, care and rehabilitation, social welfare benefits.

*Literature / Study Material*

- Laitinen A. & Aromaa K. 2005. Rikollisuus ja kriminologia. Vastapaino
- Tartu hetkeen: apua ja hoitoa päihteitä käyttäville vauvaperheille. 2001. Federation of Mother and Child Homes and Shelters OR
- Päihteiden käytön ehkäisy: opas koulujen ja sidosryhmien yhteistyöhön. 2001. Ministry of Education OR
- Leskinen M. 1999. Koukussa lapseen – irti koukusta: riippuvuus perheen näkökulmasta. Kirjayhtymä OR
- Huumetyö. 2001. Tammi tai Salasuo, M. 2004. Huumeet ajankuvana: huumeiden viihdekäytön ilmeneminen Suomessa. Stakes OR
- Vankeinhoidon perusteet. 2002. Vankeinhoidon koulutuskeskus 4/2002
- Lund P. 2006. Torjuttu toivottomuus. PS –kustannus.

*Learning Methods*

- Workshop: problem-based learning, co-operative learning, guided learning, independent study, working in small groups, discussions, guest speakers
- Assignment in advance

*Assessment*

The grade for the course consists of following parts: assignment based on literature, independently searching for information, group work, discussions and summaries produced in groups, learning assignment (given before the course). Grading based on a scale of 1–5

*Prerequisites*

Students should have most of their Basic Studies and practical period completed.

## **Childhood and youth from the perspective of substance abuse, 9 cr KF08CHO1200 (study unit)**

*Lecturers*

Helena Järvi, MSSc

*Objectives*

Students will be familiarised with the growth, development, socialisation and social welfare of children and young people, especially from the perspective of substance abuse. They will be capable of analysing and defining, from the perspective of substance abuse, the processes in society that support or hinder favourable development, e.g. lifestyle, youth culture, economical and political changes, drugs and alcohol policy. Students will be competent in recognising needs of support arising from substance abuse of children and young people or their parents and the services available to them. Students will also have learned how to set goals for the professional activities.

*Content*

- Dependency, intoxicants, use and misuse of substances, statistics
- Historical and cultural patterns of substance use
- Alternative policies concerning substances
- Children in substance abusive families
- Factors influencing substance abuse behaviour
- Ways to become free of substance abuse
- Different treatment ideologies

*Literature / Study Material*

- Drink, Drugs and Dependence, from science to clinical practice. Routledge. (in part)
- Beckett C. 2003. Child Protection: An Introduction. Sage. (in part)



- Material given by the teacher

#### *Learning Methods*

Field trips, individual assignments, lectures, working in small groups, searching for information independently.

#### *Assessment*

Accomplishing individual and group tasks, active participation in the workshop. Grading is based on a scale of 1–5.

#### *Prerequisites*

Students should have most of their Basic Studies and practical period completed.

#### *Further Information*

The course is not available during the 2009–2010 academic year.

### **Contemporary society in theoretical frameworks, 3 op KF08BHO1010 (study unit)**

#### *Lecturers*

Katariina Perttula, MSSc

#### *Objectives*

Upon completion of the course, students will be familiar with current social concepts related to the construction of a relationship between the individual, community and society. They will be competent in analysing cultural and social phenomena to understand the connections between change in society and the politics of life. Students will also be competent in utilising the theories associated with social work in their profession.

#### *Content*

Main concepts and themes are: individualization, life politics, community, reliability and social capital

#### *Literature / Study Material*

- Elämänpolitiikka. 1998. Gaudeamus
- Sosiaalinen pääoma ja luottamus. 2002. Kampuskirja
- Sosiaalinen pääoma ja hyvinvointi: näkökulmia sosiaali- ja terveysaloille. 2002. PS-kustannus

#### *Learning Methods*

- Introductory lectures
- Group meetings
- Online study

Students may also complete the course as an independent assignment.

#### *Assessment*

Active participation in all parts of the course.

### **Psychosocial and interactive social work methods, 30 op KF08BPS0 (study entity)**

Objectives: Students will possess basic knowledge of social work, its functions in society and different social work orientations. They will be competent in placing psychosocial work in the frame of different work orientations in social work. Students will have facilities to act in a goal-oriented way in situations with clients, to use interactive methods and to evaluate the work process. They will recognize that client-based and citizen-based orientation are the starting point for working methods. Students will also develop their profession and make it visible. They will also be able to put the theory they have learned into practice in the area of social welfare they have chosen. Students must choose two of the following courses to be included in their professional studies: Social Rehabilitation, Basic Social Security and Social Work, Social Work with Elderly People, or Early Childhood Education.

### **Basics of social work, 3 op KF08BPS0110 (study unit)**

#### *Lecturers*

- Marja-Liisa Saariaho, MSSc: groups 16a and asosko 15
- Helena Järvi, MSSc: groups 16b and 16c
- Arja Hemminki, LSSc: group 16d

### *Objectives*

Upon completion of the course, students will be competent in constructing a multidisciplinary knowledge base within social work. They will be familiar with the more important theories of social work, developmental stages and approaches to work. They will also be acquainted with a citizen-based and community-based approach to work.

### *Content*

- Social work theories and developmental phases
- Social work on the level of the individual, groups and community
- Citizen-based and community-based approach to work

### *Literature / Study Material*

- Raunio K. 2004. Olennainen sosiaalityössä. Gaudeamus Kirja. pp.100–130
- Pahan kosketus: ihmisyyden ja auttamistyön varjojen jäljillä. 2002. PS –kustannus. pp. 18–41
- Sosiaalityö ja teoria. 2009. PS–kustannus. pp. 209–236
- 14 puheenvuoroa sosionomien (AMK) asemasta Suomen hyvinvointiasiantuntijajärjestelmässä. Kemi–Tornio University of Applied Sciences pp. 76–207

### *Learning Methods*

Lectures, learning circle, analysis of one's personal knowledge base, exam

### *Assessment*

Active participation in all parts of the course, exam. Evaluation is based on a scale of 1 to 5.

## **Psychosocial work, 3 op KF08BPS0210 (study unit)**

### *Lecturers*

- Mirva Siltakorpi, MSSc
- Elina Kangasluoma, MSSc

### *Objectives*

Upon completion of the course, students will be familiar with the concept of psychosocial work. They will have command of the psychosocial approach to work and know how to apply that approach to various situations with clients. Students will be competent in planning, implementing and evaluating the process of goal-oriented work with clients. They will have in-depth knowledge of the relationship between psychosocial work and the underlying theories of social work and the use of various methods in working with clients.

### *Content*

- Central concepts, work methods and theories
- Psychosocial work
- Goal-oriented social work process: planning, implementation and evaluation
- Evaluation of the impact of the client work process

### *Literature / Study Material*

- Rostila I. 2001. Tavoitelähtöinen sosiaalityö. Voimavarakeskeisen ongelmanratkaisun perusteet. Kopijyvä Oy.
- Additional material assigned by the teacher

### *Learning Methods*

Lectures, group work, drama, guest speakers

### *Assessment*

- Assessment criteria to be announced at the beginning of the course
- Grading based on a scale of 1–5

## **Family work, 4 op KF08BPS0410 (study unit)**

### *Lecturers*

Martin Eeva-Kaija, MA

### *Objectives*

Upon completion of the course, students will be able to apply the family-oriented approach in negotiations with clients

and understand the concepts and practices of working with families, with particular emphasis on child protection. They will be competent in working as social workers and use co-operative methods in their work with families. Students will have command of solution-based, family-oriented approaches to working and the principles, processes and work methods of the mentioned approaches.

### *Content*

- Concepts of family, family-oriented work, and family social worker
- Working as a personal consultant
- Operational methods in working with families
- Principles of solution-based work: creating co-operative relationships with clients, setting objectives for work, change-oriented negotiations, role of the employee
- Working as a professional support person
- Active methods in family work

### *Literature / Study Material*

- Heino T. 2008. Lastensuojelun avohuolto ja perhetyö: kehitys, nykytila, haasteet ja kehittämisohdotukset: selvitys Lastensuojelun kehittämisohjelmalle. Stakes. Available: <http://www.stakes.fi/julkaisut/verkkajulkaisut/työpapereita/2008>
- Möller S. 2004. Sattumista suunnitelmallisuuteen: lapsen elämäntilanteen kartoitus lastensuojelussa. Pesäpuun opas- ja käsikirjat 1/2004
- Hovi-Pulsa R. 2008. Arkisuuntautunut perhetyö – rajat ja mahdollisuudet. In 14 puheenvuoroa sosionomien (AMK) osaamisesta Suomen hyvinvointiasiantuntijajärjestelmässä. Kemi-Tornio University of Applied Sciences (pp. 115–123)
- Rönkkö L. 2008. Ratkaisu- ja voimavarakeskeinen näkökulma vuorovaikutuksessa. In Vilén M., Leppämäki P. & Ekström L. 2008. Vuorovaikutuksellinen tukeminen. WSOY (pp. 171–203). Available: [www.lastensuojelunkasikirja.fi](http://www.lastensuojelunkasikirja.fi)

### *Learning Methods*

Lectures, group work, assignments, guest speakers and field trips

### *Assessment*

- Assessment criteria to be announced
- Grading based on a scale of 1–5

## **Case management, 4 op KF08BPS0510 (study unit)**

### *Lecturers*

- Kristiina Järvi, MSSc: study groups 15a, 15c, asosko 15
- Katariina Perttula, MSSc: study group 15b

### *Objectives*

Students will possess advanced knowledge of case management and the principles of holistic service planning. They will be competent in evaluating a client's need for services and planning how the services could be integrated and monitored with regard to local opportunities. Students will also be competent in identifying the role and course of action to be applied at different stages in the case management process. Moreover, they will possess facilities in promoting the implementation of planned services in co-operative networks and have command of the principles of networking and its practices.

### *Content*

- Concepts and traditions of case management
- Client-based evaluation of needs
- Integration of services and crossing sectoral borders
- Continuity of services
- Identification of a client's social networks
- Courses of action in networking and use
- Techniques involved in networking, e.g. one-on-one consultation, network meetings, network map

### *Literature / Study Material*

- Suominen S. and Tuominen M. 2007. Palveluohjaus: portti itsenäiseen elämään. Helsinki: Profami

- Pietiläinen E. 2003. Palveluohjaus asiakastyössä ja organisaatiossa. Helsinki: Finnish Association on Intellectual and Developmental Disabilities

### *Learning Methods*

Lectures, group work, independent assignments, guest speakers

### *Assessment*

Evaluation is based on a scale of 1 to 5 and comprises an exam based on literature and materials distributed during lectures (2/3), and an independent assignment (1/3).

## **Elementary education in day care, 3 op KF08CPS0610 (study unit)**

### *Lecturers*

Tiina Jutila, BA, kindergarten teacher

### *Objectives*

Students will understand the significance of early childhood development. They will be familiar with the concept of rearing partnership. They will understand the everyday life of children in day-care as a part of their life. They will be competent in planning and initiating activities for children and evaluating them. They will be aware of the expertise of bachelors of social services as it relates to a multi-professional work community.

### *Content*

- Foundations of early childhood development as tools to work with
- Collaboration with parents
- Play
- Basic care
- Daily routine
- Supporting children with special needs
- Controlling and guiding groups of children
- Planning, initiating and evaluating activities
- Bachelors of social services as professionals in early childhood development

### *Literature / Study Material*

- Arvioidaan yhdessä: näkökulmia arviointiin varhaiskasvatuksessa. 2004. Tammi
- Varhaiskasvatussuunnitelman perusteet. 2005. Stakes
- Additional material given by the teacher

### *Learning Methods*

Lectures, excercises, collaborative assignment and reflection

### *Assessment*

Grading based on a scale of 1–5: exam (2/3), collaborative assingment (1/3), and active participation in the course

### *Prerequisites*

Participation in the Childhood and Adolescence as Stages of Life workshop or reading the literature set for the workshop as an elective course is recommended.

## **Social work with elderly people, 3 op KF08CPS0710 (study unit)**

### *Lecturers*

Riitta Ranta, MSc

### *Objectives*

Students will be familiar with the sociocultural framework and theories associated with the promotion of well-being, functional abilities and social participation of the elderly. They will possess advanced knowledge of the methods used in working with elderly people, and they will be motivated to apply those methods to their work.

### *Content*

- Sociocultural framework of social work with elderly people
- Approaches to work based on clients' needs and abilities
- Preventive and rehabilitative approaches
- Gerontologic social work and social service work
- Memory activating methods and other expressive methods

- Validation method in dementia, problems with hearing

#### *Literature / Study Material*

- Seniori- ja vanhustyö arjen kulttuurissa. 2003. PS-kustannus
- Tunteva yksilö yhteisössä: terapeutin yhteisöhoito periaatteet ja validaatiomenetelmä Sopimusvuorisäätiön dementiaakodissa. 2007. Sopimusvuori Foundation
- Vanhuus ja sosiaalityö: sosiaalityö avuttomuuden ja toimijuuden välissä. 2007. PS -kustannus. pp. 69–91 and 253–269

#### *Learning Methods*

Lectures, group work, practising various methods in small groups using case studies

#### *Assessment*

Group work and presentation of it, group exam, active participation. Participating in group work presentations and in group exam is compulsory. Scale 1–5.

#### *Prerequisites*

Participation in Aging and the Course of Life course or reading the literature required for it as an elective course

### **Social work in social welfare agencies, 3 op KF08CPS0810 (study unit)**

#### *Lecturers*

Haapaharju Arja, BSc

#### *Objectives*

Upon completion of the course, students will be acquainted with the work carried out in social welfare offices, the Social Insurance Institutions of Finland and employment service agencies. They shall also be acquainted with the most essential features of working in social security agencies, e.g. legislation, norms and standards, and needs-testing. They will be capable of determining and applying the most important services and allowances and basing their decisions on regulations. Students will understand the character of the work in social security services from the point of view of the professional.

#### *Content*

- Essential features of good service
- Motivating discussions in working with clients
- Dealing with an aggressive client
- Benefits and services associated with various sectors using examples

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

Lectures, group work, field trips, guest speakers, independent assignment

#### *Assessment*

Active participation in all parts of the course. Evaluation is based on a scale of 1 to 5.

### **Social rehabilitation, 3 op KF08CPS0910 (study unit)**

#### *Lecturers*

Marja-Liisa Saariaho, MSc

#### *Objectives*

Upon completion of the course, students will be familiar with the area of social rehabilitation and as part of the realm of rehabilitation activities. Moreover, they will understand the significance of social rehabilitation, its goals, the processes involved in it, and the ways it can be applied to various fields. They will be competent in working according to the principles of rehabilitation as an approach to professional work.

#### *Content*

- Social rehabilitation as rehabilitative work
- Rehabilitation process
- Client-based rehabilitation process
- Connection between rehabilitation and the individual, community-based and society-bound processes

- Social welfare enterprises

#### *Literature / Study Material*

- Järvikoski A.& Härkäpää, K. 2004. Kuntoutuksen perusteet. WSOY
- Kuntoutus kanssamme: ihmisen toimijuuden tukeminen. 2004. Stakes

#### *Learning Methods*

Lectures, assignments, field trips, co-operative learning assignments, exam.

#### *Assessment*

Active participation in all areas of the course. Grading based on a scale of 1–5.

### **Practical field period: Psychosocial and interactive social work methods, 10 op KF08EPS1010 (study unit)**

#### *Lecturers*

Lecturers in the social sector studies

#### *Objectives*

Students will have command of psychosocial and interactive social work skills, especially from the perspective of the practical training organisation they have chosen. Students will possess profound understanding of the meaning of goal-oriented and client-based social work. They will have the facilities to evaluate the effects of various approaches to work from the clients' perspective. Students will also be capable of supporting and guiding clients in an interactive and goal-oriented relationship, and promoting their growth and development. Students will be able to identify personal, community-based and society-bound processes associated with the clients' situation.

#### *Content*

- Professional, interactive relationships
- Surveying clients' social situation and their needs for support
- Planning, implementation and evaluation of client-based social-service processes

Students will do their practical training in the area of the social sector relevant to their studies.

#### *Literature / Study Material*

Practical training guidebook (in Finnish): <http://intra>

#### *Learning Methods*

Introductory lectures, practical training, assignments, feedback discussions. The Analysis of Contemporary Social Work Practices course is combined with an independent assignment pertaining to the practical training.

#### *Assessment*

Pass/Fail. Assessment is based on the student's personal objectives and the objectives expressed in the curriculum.

#### *Prerequisites*

Participation in the workshops pertaining to the area of the students' chosen social sector.

### **Community work and creative methods, 26 op KF08BYL (study entity)**

Objectives: Students will be competent to strengthen welfare, coping strategies and social participation of their clients by using group work, community work and creative methods. Students will know how to choose methods, which are appropriate for the needs and abilities of group members. They have skills to guide groups and communities in a goal-oriented way. They will possess co-operative and creative skills to plan activities in the form of projects. They will be competent to work in projects, making decisions, organizing activities in projects, carrying out projects and evaluating them. Students will develop the communal and creative aspects of their profession and make them more transparent. Students will apply the theory they have learned in to practice during their practical training in the social welfare sector, which they have chosen.

### **Creative activities 1, 4 op KF08BYL0800 (study unit)**

#### *Lecturers*

- Tiina Kohtamäki, MA
- Riitta Laru, LA

*Objectives*

Upon completion of the course, students will possess adept skills in arts and crafts and theatrical expression. They will understand how the process of creativity progresses and the methods to use in that process. Students will adopt goal-oriented methods of working, recognise their personal creative strengths and be motivated to develop them. They will be familiar with the significance of creativity as a catalyst in developing one's self-image and –confidence. Students will be competent in applying the knowledge they have learned into practice.

*Content*

- Various forms of theatrical expression: verbal and non-verbal expression, making contact, motion, senses and emotions
- Improvisation and other creative expression exercises
- Handicraft techniques, materials and tools. e.g. using paper, thread and textiles, wood and clay, felting
- Motivation and activation

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Exercises, experiments and production of a small-scale piece of work, activating learning methods, learning by experience.

*Assessment*

- Exercises and assignments (80%) and journal (20%)
- Grading: pass/fail

## **Creative activities 2, 4 op KF08BYL0900 (study unit)**

*Lecturers*

- Tiina Kohtamäki, MA
- Riitta Laru, LA

*Objectives*

Upon completion of the course, students will have a comprehensive understanding of illustrative expression and music. They will advance their creative skills and recognize ways to utilise creative methods in social work in a goal-oriented way. Students will understand how the creative process proceeds from the point of view of the professional and the client. They will be aware of their creative strengths and be motivated to develop them. They will also understand creativity as a catalyst in strengthening their self-image and –confidence.

*Content*

- Illustrative expression: from idea to illustrative expression, e.g. drawing, painting, graphics, serigraphy, mixed techniques, paper pulp techniques
- Theatrical expression: theatre-based methods applied to social work. Process-based drama used as enhancer of learning and participation

*Literature / Study Material*

To be announced at the beginning of the course.

*Learning Methods*

Exercises, discussions, journal

*Assessment*

- Evaluation of the various parts of the course
- Active participation on all parts of the course required
- Grading: pass/fail

*Prerequisites*

Creative Methods I

## **Project work, 3 op KF08BYL0510 (study unit)**

### *Lecturers*

Kangasluoma Elina, MSSc

### *Objectives*

Upon completion of the course, students will be familiar with the characteristic features and role of project activities in the innovation and development of the social welfare field. They will understand the principles of project organisation, the importance of planning and the process of project work, including planning, networking, setting goals, implementation and evaluation. Students will be prepared to carry out projects as a method in social work, and they will identify the capacities professionals in social work need for project work.

### *Content*

- Concepts of project and project organization
- Special characteristics of projects in the social welfare sector
- Financial resources
- Planning, stages and process of projects, and evaluation

### *Literature / Study Material*

- Paasivaara L., Suhonen M. & Nikkilä J. 2008. Innostavat projektit. Finnish Nurses Association
- Other material as indicated by the teacher

### *Learning Methods*

Contact teaching, project plan

### *Assessment*

Active participation in all parts of the course. Grading based on a scale of 1–5.

## **Social work with groups, 3 op KF08BYL0610 (study unit)**

### *Lecturers*

- Marja–Liisa Saariaho, MSSc: study groups 16a and asosko 13
- Simo Ranta, MSc

### *Objectives*

Students will be familiar with group work as a method of social work, basic skills of supervising small groups and group dynamics. They will be aware of the significance of group process as regards supervision of a group. Students will possess readiness in applying their group work skills in supervising various groups in social work, such as peer groups, therapeutic groups and activity groups. They will be competent in promoting individuals' ability to function through group work.

### *Content*

- Group work as a method of social work
- Group dynamics, developmental stages of a group, functions of a group
- Peer groups, therapeutic groups, activity groups
- Role of the supervisor in a group
- Supervising a group

### *Literature / Study Material*

Niemistö R. 2002. Ryhmän luovuus ja kehitysehdot. Palmenia–kustannus

### *Learning Methods*

Drama exercises, exercises in interaction, lectures, discussions, group supervision exercises

### *Assessment*

Exam and group supervision assignment. Grading based on a scale of 1–5.

## **Community work, 3 op KF08BYL0710 (study unit)**

### *Lecturers*

- Arja Haapaharju, BSSc: groups 16a and asosko 13
- Arja Hemminki, LSSc: groups 14b and 14c



*Objectives*

Upon completion of the course, students will have command of the foundations of community work and community activation. They will understand the connection between the theory of social pedagogy and community work, and they be competent in applying sociocultural activation approaches to community work. Students will be competent in estimating community resources and the needs for community activation. They will possess skills in initiating, implementing, and evaluating community work.

*Content*

- Community work as working method
- Basics of social pedagogy
- Sociocultural activation and community activation
- Practical applications of community work

*Learning Methods*

Lectures, group work and collaborative assignments

*Assessment*

Group assignment (80 %) and exam or journal (20 %). Grading based on a scale of 1–5.

## **Practical field period: Community work and creative methods in social work, 9 op KF08EYL0810 (study unit)**

*Lecturers*

- Anu Aalto, MSc
- Arja Haapaharju, BSc
- Tiina Kohtamäki, MA
- Elina Kangasluoma, MSc
- Riitta Laru, LA
- Marja-Liisa Saariaho, MSc

*Objectives*

Students will gain experience in supervising groups and responsibly carrying out a project. They will have command of planning, implementing and evaluating projects in the field of social services where they utilise creative, group and communal approaches. Students will be competent in activating groups and communities, within organisations and between organisations. They will understand the significance of being able to recognise the needs and resources of a participating group and using that knowledge to initiate activities.

*Content*

- Preparing an action plan with co-operating bodies and implementing it in a goal-oriented way and evaluating the process
- Community work, group work and creative methods e.g. in client groups, social service units, residential communities or in work communities
- Organising activities in project form and making realistic plans, i.e. procedures and schedules

*Literature / Study Material*

Practical training guidebook (in Finnish): <http://intra>

*Learning Methods*

Introductory lectures, practical training, assignments, feedback sessions

*Assessment*

Pass/fail: Assessment is based on the student's personal objectives and the objectives expressed in the curriculum.

*Prerequisites*

Students should have most of their Basic Studies completed as well as the theoretical courses pertaining to communal and creative social work.

## **Organizing, managing and developing social services, 27 op KF08BOK (study entity)**

**Objectives:** Students will possess readiness to evaluate social welfare units as a part of the Finnish social welfare system and to understand how legislation, official guidelines and resources influence their functions. Students will be competent in organising and supervising social welfare services, recognising arising issues in personnel management, and evaluating quality development and social service processes. They will be familiar with the significance of assessing and analyzing the needs of client groups in developmental work. Moreover, they will be competent in exhibiting their

expertise in co-operating networks. Students will understand the framework of entrepreneurship in social services and address questions pertaining to the production of services and competition between service producers. Students will apply the theory they have learned into practice in practical training in their chosen area of the social sector.

## **Organizing social services, 3 op KF08BOK0110 (study unit)**

### *Lecturers*

- Anna–Kaarina Koivula, MSSc, Tiina Kohtamäki, MA, Minna Leppänen MSSc and Sinikka Volanto, MSSc: study groups 14a and asosko 13).
- Elina Kangasluoma,, MSSc, Tiina Kohtamäki, MA and Sinikka Volanto, MSSc: study groups 14b and 14c

### *Objectives*

Upon completion of the course, students will be competent in determining the service needs of their clients. They will be familiar with the framework of service production, especially as regards financing. Students will be capable of considering the rights and responsibilities of clients and personnel when organising services. They will also abide by international, national, and local policies when organising such services. Students will also be competent in identifying the needs of various client groups and in supporting social participation.

### *Content*

- Being a client
- Social services
- Social service organizations
- Organisational goals
- Business ideas
- Personnel
- Evaluation of service needs
- Support of social participation
- Financing services
- Recommendations, guidelines, policy programmes and legislation

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, exercises, independent and group assignments, individual and group discussions, online teaching, reflections based on literature, co-operative learning. The course alternates between theory and practice.

### *Assessment*

Students set goals for their learning and compile a portfolio, which contains their completed essays and other assignments. Active participation in all parts of the course is required. Grading is based on a scale of 1–5.

## **Development, quality management and evaluation skills, 5 op KF08BOK0210 (study unit)**

### *Lecturers*

- Anna–Kaarina Koivula, MSSc, Tiina Kohtamäki, MA, Minna Leppänen, MSSc and Volanto Sinikka, MSC: study groups 14a and asosko 13
- Elina Kangasluoma, MSSc, Tiina Kohtamäki, MA and Volanto Sinikka, MSSC: study groups 14b and 14c.

### *Objectives*

Upon completion of the course, students will possess the abilities to develop social welfare services and their quality and evaluate their efficiency. They will be familiar with the bodies that supervise and co-ordinate the development of services, as well as the methods used in development processes. Students will possess a profound understanding of the factors, which influence the quality of service. They will be able to identify various perspectives affecting the evaluation of service processes. Students will be competent in presenting their expertise to various multiprofessional networks. They will also possess the facilities to organise collaboration for supporting clients and developing services.

### *Content*

- Methods used in development
- Evaluation of service processes
- Quality of services, examples of quality systems, quality evaluation
- Role of networks in developing services
- Co-operation in developing services

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, exercises, individual assignments and assignments done in small groups, online learning, reflections based on literature, and cooperative learning. The course alternates between theory and practice.

### *Assessment*

Students set goals for their learning and produce a portfolio, which comprises their completed essays and assignments. Active participation is required in all parts of the course. Evaluation is based on a scale of 1 to 5.

## **Management and leadership, 4 op KF08BOK0310 (study unit)**

### *Lecturers*

- Anna-Kaarina Koivula, MSc, Tiina Kohtamäki, MA, Minna Leppänen, MSc, Sinikka Volanto, MSc: study groups 14a and asosko 13
- Elina Kangasluoma, MSc, Tiina Kohtamäki, MA and Volanto Sinikka, MSc: study groups 14b and 14c.

### *Objectives*

Upon completion of the course, students will have adopted extensive understanding of how social service organisations are supervised and how personnel administration is carried out. They will possess the facilities to take charge of supervising and organising tasks, to develop the work community and their personal work process in a goal-oriented manner. They will also be able to identify the significance of occupational welfare and distinguish models for supervising work. Students will also be aware of practices that promote cooperation.

### *Content*

- Leadership as a form of professional social welfare work
- Personnel administration (coaching, mentoring, initiating new employees)
- Development of the work community (work supervision, developmental discussions, cooperation)
- Development of one's personal work process and self-management

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

Lectures, exercises, independent assignments and assignments in small groups, online teaching, reflections based on literature, co-operative learning. The course alternates between theory and practice.

### *Assessment*

Students set goals for their learning and produce a portfolio, which comprises their written essays and assignments. Active participation is required in all parts of the course. Evaluation is based on a scale of 1 to 5.

## **Entrepreneurship in social services, 3 op KF08BOK0400 (study unit)**

### *Lecturers*

Sinikka Volanto, MSc

### *Objectives*

Students will become familiar with the characteristic features of entrepreneurship in social welfare and health care services, the attitudes concerning entrepreneurship and the factors that define private social and health care services. Students will possess competence in creating business ideas and action plans. They will also be familiar with entrepreneurial practices such as establishing a business, producing services, marketing the services and competition of service producers.

### *Content*

- Entrepreneurship in social welfare
- Elements of success in business, quality and development, internal entrepreneurship
- Attitudes concerning entrepreneurship
- Business ideas and action plans
- Entrepreneurial skills, establishing a company
- Licences, contracts of purchase, processes of competition
- Producing services, marketing the services
- Interest groups, networks and co-operation

### *Literature / Study Material*

- Tenhunen L. 2004. Yrittäminen sosiaali- ja terveysalalla. Yrityssanoma
- Hoivayrittäjyys. 2004. PS-Kustannus
- Yrityksen perustamisopas. Käytännön perustamistoimet (latest edition). Edita.

### *Learning Methods*

Assignments, guest speakers, field trips, online learning. Students may study in the classroom or take the course online.

### *Assessment*

Active participation in all parts of the course is required. Grading based on a scale of 1–5.

## **Practical field period: Organizing, managing and developing social services, 12 op KF08EOK0410 (study unit)**

### *Lecturers*

- Anna-Kaarina Koivula, MSc, Tiina Kohtamäki, MA and Sinikka Volanto, MSc: groups 14a and asosko 13
- Elina Kangasluoma, MSc, Tiina Kohtamäki, MA and Sinikka Volanto, MSc: groups 14b and 14c

### *Objectives*

Upon completion of the course, students will possess sufficient skills in managing and supervising social welfare services, e.g. client work, expert teams and projects. They will be capable of developing services, which are based on clients' needs. They will recognise the defining factors, which influence practices, e.g. objectives, resources, directions, personnel, clients. They will also be familiar with the quality control system used in the field. Students will possess the facilities to deal with situations associated with personnel administration, to co-operate in the organisation and with collaborating networks. They will be able to hold negotiations and meetings and understand the importance of documentation. The course requires students to carry out a developmental assignment in which they learn responsibility for actions taken.

### *Content*

- Structure and financing of social services organisations
- Official recommendations, guidelines and legislation
- Documentation
- Quality control systems and contemporary development projects
- Supervising, organising and developing services
- Personnel administration, occupational welfare and co-operation with various bodies, e.g. meetings at the workplace, negotiations, training
- Well-being in the work community

### *Literature / Study Material*

- Practical training guidebook (in Finnish): <http://intra>.
- Annual reports
- Budgets
- Planning documents
- National development programmes
- Quality control documents

### *Learning Methods*

Introductory lectures, active participation at the workplace and according to set objectives, personal portfolio, and feedback discussions

### *Assessment*

The course is evaluated on a pass/fail basis, according to the students' personal objectives and the objectives described in the curriculum.

### *Prerequisites*

Courses pertaining to psychosocial and interactive social work methods and the social sector

## **Empowerment methods in social work, 12 op KF08BVS (study entity)**

Objectives: Students will have command of the principles of critical and radical social work and ways of empowering clients, and they will be familiar with the methods and practices associated with approaches to work. Students will understand the various forms of multiculturalism, and they will apply various practices to social work with ethnic group and minorities. Students will have the opportunity to apply their knowledge of empowerment and/or multi-cultural

approach when working with people from various ethnic backgrounds during their practical training in the social welfare sector they have chosen, either in Finland or abroad. Students may modify courses and direct their practical training in the sector most interesting to them.

## **Social work and multicultural groups, 3 op KF08BVS0130 (study unit)**

### *Lecturers*

- Helena Järvi, MSSc: study groups asosko 13 and 16a
- Anu Aalto, MSSc: study groups 14b and 14c

### *Objectives*

Upon completion of the course, students will possess knowledge of the basic concepts related to intercultural communication and the main issues in Finnish immigration policy. They will be familiar with the more significant legislation and social services pertaining to immigrants, and they will have basic knowledge of Finland's ethnic minorities. Students will be aware of their own ethnic identity, its background and how it influences professional social work. Students will be motivated to enhance their cultural sensitivity, and they will understand the social issues related to globalisation and immigration.

### *Content*

- Concept of culture from the perspective of cultural interaction
- Acculturation
- Cultural sensitivity, multiculturalism, ethnicity, ethnic and cultural identity, stereotypes, racism
- Features of Finnish identity
- Ethnic minorities in Finland, immigration as global phenomenon
- Immigration policy in Finland, its objectives and implementation
- Social work and cultural differences

### *Literature / Study Material*

- Finnish Literature Society. 1999. Sama taivas, eri maa: maahanmuuttajan tarina
- Rätty, M. 2002. Maahanmuuttaja asiakkaana. Tammi
- Other material provided by the teacher

### *Learning Methods*

Lectures, group discussions, written and video materials, group work and presentations, written reflection of one's learning process, participation in international activities arranged by the school.

### *Assessment*

Group work, reflection of one's personal learning and active participation in contact teaching. Grading based on a scale of 1–5.

## **Social work and multicultural groups, 3 cr KF08BVS112 (study unit)**

### *Lecturers*

Helena Järvi, MSSc

### *Objectives*

Upon completion of the course, students will understand and appropriately utilise the basic concepts of intercultural interaction. They will be familiar with the essential features of the Finnish immigrant and minority group policy, the laws and services concerning immigrants and cultural and ethnic minorities, and they will be competent in finding respective information about other countries and comparing different policies and the historical, social and global factors pertaining to them. Students will recognise the features of their own ethnic identity and background and the cultural codes that influence on interaction between the client and social worker. Students will be motivated to develop their intercultural communication skills.

### *Content*

- Basic concepts: cultural differences, cultural codes, discrimination, racism, acculturation, diversity, ethnicity, ethnic and cultural identity, multiculturalism, migration, refugees
- Ethnic minorities and the situation in Finland and in other countries, the minority and immigration policy in Finland compared to other countries
- Social work and cultural diversity

### *Literature / Study Material*

Articles assigned by the teacher

### *Learning Methods*

Lectures, group assignment, individual analysis of learning

### *Assessment*

Group assignment, summary of a given article, analysis of one's learning, and active participation in the lectures

## **Critical and radical social work, 3 op KF08BVS0210 (study unit)**

### *Lecturers*

- Anna–Kaarina Koivula, MSSc
- Helena Järvi, MSSc
- Kristiina Järvi, MSSc

### *Objectives*

Upon completion of the course, students will have command of the basic principles of critical and radical social work, and they will be competent in applying methods of empowerment and introducing clients' perspectives in social work activities. Students will recognise the individual, community–based and society–bound factors that cause social exclusion or hinder equality and justice between different people. Students will also be competent in identifying, questioning and preventing marginalizing practices, processes and structures.

### *Content*

- Critical and radical social work as a method of work, principles and practices
- Social work practices associated with power, control and change and their impacts
- Practices, processes and structures that cause marginalization and discrimination, identifying them, breaking them down and changing them

### *Literature / Study Material*

Students choose one book in Finnish and one in a foreign language from the following options:

- Vähemmistöt ja niiden syrjintä Suomessa. 1996. Yliopistopaino
- Marginaalit ja sosiaalityö. 2002. University of Jyväskylä
- Helne T. 2002. Syrjäytymisen yhteiskunta. Stakes
- Dalrymple J. & Burke B. 1997. Anti–Oppressive Practice: Social care and the law. Open University Press
- Fook J. 2002. Social Work: Critical theory and practice. Sage
- Gil D. 1998. Confronting Injustice and Oppression: Concepts and strategies for social workers. Columbia University Press.

### *Learning Methods*

- Introductory lectures
- Online teaching

The course is integrated into the Empowering Methods in Social Work course.

### *Assessment*

Grading is based on the introductory lectures, exercises, independent assignments and exam on a scale of 1–5.

### *Prerequisites*

Basic Studies and Professional Studies

## **Practical field period: Empowering methods in social work, 6 op KF08EVS0310 (study unit)**

### *Lecturers*

- Anna–Kaarina, MSSc
- Kristiina Järvi, MSSc
- Helena Järvi, MSSc

### *Objectives*

Students will have command of the principles, methods and practices of empowerment and know how to apply them in practice. They will be capable of evaluating goal–oriented actions based on individual, communal and societal factors

that cause marginalisation, inequality and injustice among various people. Students will gain experience in socially strengthening their clients and changing practices that promote marginalisation. Students will identify the structures, interests and contradictions associated with empowerment.

### *Content*

- Identifying and initiating needs for change
- Approaches of empowerment between the professional and the client
- Organisations and community actions
- Professional social work methods in empowerment

### *Literature / Study Material*

Practical training guidebook (in Finnish): <http://intra>

### *Learning Methods*

Introductory lectures, practical training, assignments

### *Assessment*

The grade for the course consists of active participation in the introductory lectures, approved completion of the practical training and final report. Grading is based on pass/fail basis according to the students' personal objectives and objectives expressed in the curriculum.

### *Prerequisites*

Students are required to complete the Critical and Radical Social Work course either before they begin the practical training or at the same time.

## **Social research, 29 op KF08BST (study entity)**

Objectives: Students will demonstrate their knowledge in the basic skills of social research methods. They will understand their role as producer, user and analyser of knowledge. They will be familiar with the research methods used in various research reports. Students will acquire the capacity to think on an abstract level and know the basic rules of academic writing. They will possess facilities to perform research activities, to introduce practical knowledge and to develop their professional field using the methods of social research. Students will be able to identify needs for research and development, define a set topic for research, choose the most suitable research methods for the task, implement the research plan in practice, report about their work and present the results of research and development activities.

## **People and community as source of information, 2 op KF08BST0110 (study unit)**

### *Lecturers*

Katariina Perttula, MSSc

### *Objectives*

Upon completion of the course, students will understand the significance of the information obtained from people and the community in developing professional methods and services. They will also understand the importance of the information that people of different ages in the community offer concerning their living conditions, well-being and social needs. Students will be competent in considering various methods for generating citizen-based knowledge. Students will acquire experience in obtaining information about well-being and be competent in analysing that information using an appropriately chosen research method.

### *Content*

- Citizen-based social work
- Using citizen-based knowledge to develop services
- Concept of well-being and its dimensions
- Interviewing as the method of producing citizen-based knowledge

### *Literature / Study Material*

To be announced at the beginning of the course.

### *Learning Methods*

- Contact teaching
- Assignment for gathering information from a client or citizen
- Reflecting upon the interview experiences with other students
- Documentation of interview material

The course is integrated into the Qualitative Research Methods course.

#### *Assessment*

- Participation in contact teaching, assignment concerning client/citizen interview and a report about it
- Grading: pass/fail

#### *Further Information*

R&D course

### **Qualitative research methods, 3 op KF08BST0210 (study unit)**

#### *Lecturers*

Katariina Perttula, MSSc

#### *Objectives*

Upon completion of the course, students will possess knowledge of the principles and processes of qualitative research as a research strategy. Students will identify the bases of qualitative research, and they will be able to evaluate the usage of the special qualitative methods associated with the research topic. Students will possess the capacity to identify the research problem, and will have interiorized the use of various methods for analysing qualitative data, and be able to use them when analysing data. Students will also be able to formulate the knowledge arising from qualitative data into research results and report it in an appropriate way. They will also be able to evaluate the validity and reliability of the results.

#### *Content*

- Principles and processes of qualitative research
- Defining research problems and formulating research questions
- Various applications of qualitative research
- Thematic interview as a qualitative research method
- Various methods to use in analyzing qualitative research
- Reporting the results of qualitative research
- Research validity

#### *Literature / Study Material*

Hirsjärvi S. & Hurme H. 2000. Tutkimushaastattelu: teemahaastattelun teoria ja käytäntö. Yliopistopaino.

#### *Learning Methods*

Lectures, exercises and exam, or alternatively a minor study with a group using material provided by the teacher. This course is integrated into the Citizen-based Information Acquisition course.

#### *Assessment*

Active participation in all parts of the course. Evaluation is based on a scale of 1 to 5.

#### *Further Information*

R&D course

### **Quantitative research methods, 3 op KF08BST0310 (study unit)**

#### *Lecturers*

Hilkka Latva-Somppi, MA

#### *Objectives*

Upon completion of the course, students will understand the basic concepts, research processes and the more common research methodologies in social work. They will have command of the SPSS statistics programme as a tool in quantitative research and illustrate quantitative data using tables, parameters and graphics in the SPSS program. They will also be competent in using quantitative research methods in their thesis work and other areas of their studies, and they will possess skills in analyzing statistical dependencies between variables.

#### *Content*

- Features of quantitative research
- Research process and concepts, planning data acquisition
- Scales of variables
- Samples



- Analysing data with the SPSS program: frequency tables, cross-reference tables, parameters, graphic presentations, and statistical tests

#### *Literature / Study Material*

- Heikkilä T. 2004 or later. Tilastollinen tutkimus. Edita
- Online materials

#### *Learning Methods*

Lectures, online learning (50 %), exercises

#### *Assessment*

Evaluation for the course is based on active participation in the lectures and online sessions, and completion of the online assignments. Grading is based on a scale of 1 to 5.

#### *Further Information*

R&D course

### **Action research, 2 op KF08BST0510 (study unit)**

#### *Lecturers*

Anu Aalto, MSSc

#### *Objectives*

Upon completion of the course, students will understand the target of development as a process where action and research are combined. They will be able to identify and set action research strategies, recognise the different roles of a developer and act accordingly. Students will possess knowledge of the action research process as a whole and the skills needed in setting and formulating realistic development tasks. Students will acquire knowledge of methods used in action research, and analyse, utilise, and present information and results, which are based on action research. Student will be able to use these skills in their thesis writing process and other activities related to research.

#### *Content*

- Setting the development task
- Discussing the various roles of researchers and developers
- Process of action research
- Action research methods and data
- Different ways to analyse action research data
- Conclusions, evaluation and reporting

#### *Literature / Study Material*

Toiminnasta tietoon: toimintatutkimuksen menetelmät ja lähestymistavat. 2006. Helsinki: KVS Foundation

#### *Learning Methods*

Lectures and/or assignments announced by the lecturer

#### *Assessment*

Active participation in all parts of the course. Evaluation is based on a scale of 1 to 5.

#### *Further Information*

R&D course

### **Professional essay, 4 op KF08BST0630 (study unit)**

#### *Lecturers*

Lecturers of social sector studies

#### *Objectives*

Upon completion of the course, students will possess in-depth knowledge about issues in the social sector as pertains to the area they have chosen to study. Students will also possess the skills necessary in choosing and defining subject matter relevant to their area of study and they will be able to acquire literature associated with the subject matter to produce an essay. Students will be competent in writing a logical, analytical essay about their chosen topic while applying theoretical knowledge. They will be able to produce factual texts, which combine literary sources of information and students' own individual reasoning and which follow the general standards for layout.

#### *Content*

- Choosing a topic to write about and defining it
- Obtaining information via various sources
- Standards required for factual writing
- Writing essays
- Presentations and acting as an opponent

#### *Literature / Study Material*

The study material for the course is in Finnish and located online at: <http://intra>

#### *Learning Methods*

- Introductory lectures
- Compiling a professional essay
- Personal guidance and guidance in small groups
- Discussion of essays in small groups
- Peer reading, acting as an opponent

The study group's web-base will also be utilized. Teaching in the English group will be in English.

#### *Assessment*

- Writing a field-related essay
- Active participation in discussions about the essays
- Acting as an opponent
- Evaluation on a scale from 1 to 5

#### *Prerequisites*

Social sector –studies

#### *Further Information*

R&D course

## **Thesis, 15 op KF08BST0710 (study unit)**

#### *Lecturers*

- Anu Aalto, MSSc
- Arja Hemminki, LSSc
- Katariina Perttula, MSSc
- Päivi Rinne, DSSc
- Mirva Siltakorpi, MSSc
- Timo Toikko, DSSc
- Kerttu Veikkola, MSSc

#### *Objectives*

Upon completion of the course, students will be competent in organising and carrying out research and development activities. Students will analyse and structure information arising in practical situations using various research methods and utilise the acquired information as the basis for their research and development activities. Students will also be competent in reporting their research results and applying those results in practice in the field of social work.

#### *Content*

- Determining the research problem or area of development
- Examining the research problem using concepts
- Drawing up a research plan or developmental plan
- Choosing methods, implementing the plan
- Organising, directing and co-operating
- Reporting and evaluation
- Acting as peer reader and opponent

#### *Literature / Study Material*

- Seinäjoki University of Applied Sciences' Instructions for Writing a Thesis: <http://intra>
- Other literature related to research and development

#### *Learning Methods*

Introductory lectures, individual supervision and supervision in small groups, seminars, acting as peer reader,

independent work, Maturity Test

#### *Assessment*

Criteria of assessment are expressed in the Seinäjoki UAS instruction for thesis. Assessment for the course is based on participation individual and group supervision, active, independent work, preparation for thesis supervision, acting as a peer reader, seminar work, Maturity Test, approved report of the thesis process. Grading is based on a scale of 1 to 5.

#### *Prerequisites*

Successful completion of Academic Writing Students must have a sufficient amount of coursework completed before they can begin their thesis.

#### *Further Information*

R&D course

## **Basics of Social Care, 2 op KF08DVV0110 (study unit)**

#### *Lecturers*

Tarja Knuuttila, MSc

#### *Objectives*

Students will understand the general principles of close-assistance. They will be competent in evaluating clients' basic needs and in supporting people of different ages. Students will be familiar with the ergonomic principles, ways of working close to someone, common tools and how to use them.

#### *Content*

The course involves co-operative learning. It concerns the close-assistance of out-patients and the close-assistance that takes place in the home. The main themes in the course include, working aseptically, preventing contagious diseases, skin care, breathing, blood circulation, nutrition, rest, sleep and dressing.

#### *Literature / Study Material*

To be announced at the beginning of the course.

#### *Learning Methods*

- Contact teaching
- Assignments

#### *Assessment*

To be announced at the beginning of the course: pass/fail.

#### *Further Information*

Recommended to students who have no prior training or experience in close-assistance.

## **Special education, 2 op KF08DVV0410 (study unit)**

#### *Lecturers*

Kerttu Veikkola, MSc

#### *Objectives*

Students will be aware of the principles and procedures for promoting the development and ability to function of disabled people. They will be capable of utilising those methods to develop and support the sensory functions, communication skills, motor skills and social and mental capacities. Students will be familiar with the bodies involved in initialising special education and the goals of their activities.

#### *Literature / Study Material*

- Poikkeava vai erityinen?: erityispedagogiikan monet ulottuvuudet. 1998. Atena
- Additional material given by the teacher

#### *Assessment*

Grading on a scale of 1–5

#### *Prerequisites*

Students should have most of their Basic Studies completed.

### *Further Information*

The course will not be held during the 2009–2010 academic year.

## **Crisis intervention in social work, 2 op KF08DVV0310 (study unit)**

### *Lecturers*

Kerttu Veikkola, MSc

### *Objectives*

Students will examine crises as a part of an individual's normal life cycle, and they will be competent in recognising crises on in individuals and in communities. They will be familiar with the methods for handling crisis situations. They will also understand the significance of multi-professional collaboration and procedures in crisis work.

### *Literature / Study Material*

- Saari S. 2000 or later edition. Kuin salama kirkkaalta taivaalta: kriisit ja niistä selviytyminen. Otava
- Other material announced by the teacher

### *Assessment*

Scale 1–5

### *Prerequisites*

Students should have most of their Basic Studies completed.

## **Mental health work, 2 op KF08DVV1510 (study unit)**

### *Lecturers*

Kerttu Veikkola, MSc

### *Objectives*

Upon completion of the course, students will understand the concept of mental health as a process of interaction. They will be familiar with the goals, areas of emphasis and the tools used in preventive mental health. Students will be competent in supporting mental health and helping others to take control of their life. They will also be competent in supporting people with mental health problems during the different phases of their lives. Students will be capable of handling stress and exhaustion in a profession that involves helping people.

### *Content*

- Goals and areas of emphasis in mental health work
- Practices used in mental health work
- Preventive mental health work
- Issues relating to interaction in different treatment environments
- Promoting mental health
- Empowerment as a challenge in development

### *Literature / Study Material*

- Noppari E., Kiiltomäki A. & Pesonen, A. 2007. Mielenterveystyö perusterveydenhuollossa. Tammi
- Other material as indicated by the lecturer

### *Learning Methods*

- Contact teaching
- Group work
- Field trip

### *Assessment*

- Active participation in all areas of the course
- Grading based on a scale of 1–5

### *Prerequisites*

Students should have most of their Basic Studies in the Degree Programme in Social Services completed.

## **Youth work, 2 op KF08DVV0210 (study unit)**

### *Lecturers*

Eeva-Kaija Martin, MA

### *Objectives*

Upon completion of the course, students will have an overall understanding of the dynamic, multi-professional nature of youth work. They will be familiar with the goals and practices in social work with adolescents, general municipal youth work and specialised youth work. They will be competent in organising activities intended to reinforce the social skills of adolescents.

### *Content*

- History of youth work
- Legislation pertaining to youth work
- Social work with adolescents
- Municipal youth work
- Adventure-based rearing
- Explorative youth work
- Youth work at schools
- Social pedagogy in youth work

### *Literature / Study Material*

- Nieminen J. 1995. Nuorisossa tulevaisuus: suomalaisen nuorisotyön historia. Lasten keskus
- Nuorisokasvatuksen teoria: perusteita ja puheenvuoroja. 2007. Nuorisotutkimusverkosto
- Hyvä ihminen ja kunnon kansalainen: johdatus kansalaisuuden sosiaalipedagogiikkaan. 2006. Tampere University Press
- Seikkaillen elämyksiä: seikkailukasvatuksen teoriaa ja sovelluksia. 2007. Lapin yliopistokustannus
- Kokljuschkin M. 1999. Seikkailuun!: varhaiskasvatuksen seikkailukirja. Kirjayhtymä
- Lehtinen J. & Säilä S. 2004. Saaristoseikkailu: vapaa-ajan kehittämishanke perheryhmäkodissa. Diakonia University of Applied Sciences
- Koulu yhteisöllisenä toimijana. 2005. Helsinki University of Applied Sciences
- Nuorisotyötä koulussa. 2005. Humak University of Applied Sciences
- Pihlaja J. 1997. "Ne ei ainakaan laula mitään eteenpäin": tutkimus etsivän nuorisotyön projektista Tampereella 1991–1995. Nuorten palvelu
- [www.seikkailukasvatus.fi](http://www.seikkailukasvatus.fi)
- [www.alli.fi](http://www.alli.fi)
- Other material as indicated by the teacher

### *Assessment*

- Assignment: 50 %
- Independent study and active participation: 50 %
- Grading based on a scale of 1–5

### *Prerequisites*

Students should have most of their Basic Studies in the Degree Programme in Social Services completed.

## **Special education, 3 op KF08DVV0520 (study unit)**

### *Lecturers*

Liisa Ahola, MSc

### *Objectives*

Upon completion of the course, students will be familiar with the legislation pertaining to drug treatment, the various types of drugs and how they are administered, and the phases of drug substances in the body. Students will be competent in reading prescriptions and know how drugs are ordered, stored, distributed and destroyed. They will be able to administer solid and liquid drugs and give insulin shots. They will also be familiar with the drug treatment of the more common diseases suffered by Finns.

### *Content*

- Basic concepts in drug treatment
- Types of drugs and how to administer the (naturally)
- Phases of drug substances in the body and anaphylactic reactions

- Regulations pertaining to drug treatment (Turvallinen lääkehoito, Valtakunnallinen opas lääkeshoidon toteuttamisesta sosiaali- ja terveydenhuollossa STM 2005:32, Lääkelaki)
- Prescriptions and using the Pharmaca Fennica
- Storing and destroying drugs
- Dispensing drugs into a dispenser at a clinet's home
- Documenting drug treatment
- Giving an insulin shot
- Calculating drug doses
- Solid types of drugs
- Drug treatment of the more common diseases

#### *Literature / Study Material*

Nurminen M–L. 2006 or latest edition. Lääkehoito. Porvoo; Helsinki: WSOY oppimateriaalit (assigned parts)

#### *Learning Methods*

- Lectures
- Working alone and in pairs
- Small-scale exercises
- Independent study
- Exam

#### *Assessment*

Students are required to have at least 50 % of the answers on the theoretical part of the exam correct, and the drug calculations must be all correct in order to pass the exam. Paasing the course requires that students pass their exam and attend 100 % of the lessons.

#### *Prerequisites*

Students should have most of their Basic Studies in the Degree Programme in Social Services completed.

#### *Further Information*

Ministry of Social Affairs and Heath 2005:32 "Turvallinen lääkehoito" guidebook states the following about the organisation of drug treatment: "Lääkehoidon koulutusta saanut sosiaalihuollon ammatillinen henkilöstö voi antaa valmiiksi jaettuja lääkkeitä luonnollista tietä ja jakaa lääkkeitä dosettiin asiakkaan kotona. Lisäksi he voivat pistää lääkettä ihon alle riittävän lisäkoulutuksen, osaamisen varmistamisen ja myönnetyn kirjallisen luvan jälkeen." (A trained professional in social welfare is permitted to administer readily distributed drugs naturally and dispense drugs into a dispenser in clinets' homes. In addition, they are permitted to administer drugs under the skin after having obtained appropriate further training, provided evidence of the said training and receiving a written licence. Unofficial translation). A doctor responsible for health care gives the written licence to carry out drug treatment. The doctor who grants the licence is responsible for assuring the social welfare professional possesses the required expertise and determining the need for further training. Students are obligated to present proof of their completed studies in drug treatment and the grades they received for those studies.

## **Childhood and youth from the perspective of substance abuse, literature, 3 cr KF08DVV1200 (study unit)**

#### *Lecturers*

Helena Järvi, MSc

#### *Literature / Study Material*

- Drink, Drugs and Dependence, from science to clinical practice. 2002. Routledge
- Beckett C. 2003. Child Protection: An Introduction. Sage

#### *Learning Methods*

Book exam

#### *Assessment*

Scale 1–5

## **Ageing in the life course, literature, 3 op KF08DVV0800 (study unit)**

#### *Lecturers*

Riitta Ranta, MSc

#### *Literature / Study Material*

- Vanhuuden voimavarat. 2002. Tammi; Vanheneminen ja terveys. 2007. Edita (pp. 1–214)
- Muistihäiriöt. Helsinki: Duodecim
- Kurki L. Innostava vanhuus: sosiokulttuurinen innostaminen vanhempien aikuisten parissa. Helsinki: Finnlectura

#### *Learning Methods*

Book exam

#### *Assessment*

Grading based on a scale of 1–5.

#### *Prerequisites*

The course is intended for those students who have already completed their sector-based studies or who will complete them during the 2009–2010 academic year. Students may not take the book exam on literature in their own sector. Students may complete this course as an elective. The exam takes place on the general exam day.

### **Childhood and youth as a phase of life, literature, 3 op KF08DVV0600 (study unit)**

#### *Lecturers*

- Eeva-Kaija Martin, MA
- Kerttu Veikkola, MSc

#### *Literature / Study Material*

Students are required to read the following literature:

- Päivähoidosta varhaiskasvatukseen. 2007. Edufin
- Kronqvist E-L. & Pulkkinen M-L. 2007. Kehityopsykologia: matkalla muutokseen. WSOY
- Hoppo I. 2008. Sosionomien (AMK) osaaminen ja osaamishaasteet varhaiskasvatuksessa. In 14 puheenvuoroa sosionomien (AMK) asemasta Suomen hyvinvointiasiantuntijajärjestelmässä. Kemi-Tornio University of Applied Sciences

In addition, students choose one of the following:

- Menetyksistä mahdollisuuksiin: perhehoitoa lasten ja vanhemmuuden tueksi. 2008. PS-kustannus OR
- Pösö T. 2004. Vakavat silmät ja muita kokemuksia koulukodista. Stakes

#### *Learning Methods*

Book exam

#### *Assessment*

Grading based on a scale of 1–5.

#### *Prerequisites*

Students should have most of their Basic Studies in the Degree Programme in Social Work completed.

#### *Further Information*

Students who are studying in the Childhood and Adolescence as Stages in Life may not take this book exam.

### **Mental health, literature, 3 op KF08DVV1300 (study unit)**

#### *Lecturers*

Kerttu Veikkola, MSc

#### *Literature / Study Material*

Students choose four books from the following:

- Turtonen J. 2006. Mielenterveysongelmat: mistä apua? Minerva
- Friis L., Eirola R. & Mannonen M. 2004. Lasten ja nuorten mielenterveystyö. WSOY
- Koffert T. & Kuusi K. 2002. Depressiokoulu: opi masennuksen ehkäisy- ja hoitotaitoja: workbook. SMS-tuotanto
- Koskisu J. 2004. Eri teitä perille: mitä mielenterveyskuntoutus on? Edita
- Mattila J. 2004. Ujoudesta, yksinäisyydestä. WSOY
- Turpeinen P. 2004. Ahdingossa luova lapsi ja nuori: tienviittoja kasvuun. Edita
- Toskala A. 1997. Pelot ja niiden voittaminen: kohti uudenlaista rohkeutta. Writers' House
- Kuuntele minua: mielenterveystyön käytännön menetelmiä. 2009. Tammi.

### *Learning Methods*

Book exam

### *Assessment*

Grading based on a scale of 1–5.

## **Substance abuse and criminal behaviour, literature, 3 op KF08DVV1000 (study unit)**

### *Lecturers*

- Tiina Kohtamäki, MA
- Anna–Kaarina Koivula, MSc

### *Literature / Study Material*

Students are required to read the following book:

- Laitinen A.& Aromaa K. 2005. Rikollisuus ja kriminologia. Vastapaino

In addition, they are required to read three of the following:

- Tartu hetkeen: apua ja hoitoa päihteitä käyttäville vauvaperheille. 2001. Federation of Mother and Child Homes and Shelters
- Päihteiden käytön ehkäisy: opas koulujen ja sidosryhmien yhteistyöhön. Opetushallitus. Stakes: Finnish Centre for Health Promotion
- Leskinen M. 1999. Koukussa lapseen – irti koukusta: riippuvuus perheen näkökulmasta. Kirjayhtymä
- Huumetyö. 2001. Tammi
- Salasuo M. 2004. Huumeet ajankuvana: huumeiden viihdekäytön kulttuurinen ilmeneminen Suomessa. Stakes
- Vankeinhoidon perusteet. 2002. Tietosanoma
- Lund P. 2006. Torjuttu toivottomuus. PS–kustannus

### *Learning Methods*

Book exam

### *Prerequisites*

This book exam is recommended to those students who have already completed their sectoral studies or who will complete them in the 2009–2010 academic year. Students may not use books from their sectoral studies. The book exam may be used as an elective. The exam takes place on the general exam day.

## **Work, living and basic security, literature, 3 op KF08DVV0700 (study unit)**

### *Lecturers*

Mirva Siltakorpi, MSc

### *Literature / Study Material*

Students are required to choose two of the following:

- Pääsy kielletty! Poiskäännyttämisen politiikka ja sosiaaliturva. 2007. Stakes
- Raunio K. 2006. Syrjäytyminen: sosiaalityötä kiinnostavia näkökulmia. Finnish Federation for Social Welfare and Health (STKL)
- Inhimillinen turvallisuus. 2000. Vastapaino

In addition, students choose one of the following:

- Elämäni tarina. Lukemisto lapsuuden kokemuksista lastenkodissa ja perhehoidossa. 2000. Finnish Federation for Social Welfare and Health (STKL)
- Komppa J. 2001. Minä olen. Atena
- Korhonen R. 2003. Kahden ja yhden yön tarinoita. Sammakko
- Rantala R–S. 2005. Optimisti: äänetön monologi. Like
- Sahlberg A. 2001. Eksyneet. WSOY
- Salonen J. 2006. Enkelit eivät itke. FinnEpos

### *Learning Methods*

Book exam

### *Assessment*

Grading based on a scale of 1–5.



### *Prerequisites*

This book exam is recommended to those students who have already completed their sectoral studies or who will complete them in the 2009–2010 academic year. Students may not use books from their sectoral studies. The book exam may be used as an elective. The exam takes place on the general exam day.

## **Disability and handicap in the life course, literature, 3 op KF08DVV0900 (study unit)**

### *Lecturers*

- Kristiina Järvi, MSc
- Marja-Liisa Saariaho, MSc

### *Literature / Study Material*

- Malm M., Matero M., Repo M. & Talvela E-L. 2004. Esteistä mahdollisuuksiin: vammaistyön perusteet. WSOY
- Määttä P. 1999. Perhe asiantuntijana. Atena
- Stenros N. 2008. Signmark. Otava
- Lampinen R. 2007. Omat polut! Vammaisesta lapsesta täysivaltaiseksi aikuiseksi. Edita Prima Oy
- Kerola K., Kujanpää S. & Timonen T. 2009. Autismin kirjo ja kuntoutus. PS-kustannus

### *Learning Methods*

Book exam

### *Assessment*

Grading based on a scale of 1–5.

### *Prerequisites*

This book exam is recommended to those students who have already completed their sectoral studies or who will complete them in the 2009–2010 academic year. Students may not use books from their sectoral studies. The book exam may be used as an elective. The exam takes place on the general exam day.

## **Parenthood and breeding, 3 op KF08DVV1400 (study unit)**

### *Lecturers*

Kerttu Veikkola, MSc

### *Literature / Study Material*

Students choose four of the following:

- Frost J. 2006. Lapsityrannit: kehity kasvattajana. WSOY
- Nevalainen V. 2005. Aikuinen ja lapsi: kasvatuksesta voi selvitä hengissä. Edita
- Vanhemmuuden ja lapsen kasvun tukeminen päivähoitossa. 2004. Tammi
- Salmivalli C. 2005. Kaverien kanssa: Vertaissuhteet ja sosiaalinen kehitys. PS-kustannus
- Macmillan B. 2006. Miksi pojat ovat poikia ja miten kehittää heidän parhaita puoliaan. WSOY
- Sinkkonen J. 2005. Elämäni poikana. WSOY
- Pulkkinen L. 2002. Mukavaa yhdessä: sosiaalinen alkupääoma ja lapsen sosiaalinen kehitys. PS-kustannus
- Huhtanen K. 2007. Kun huoli herää: varhainen puuttuminen koulussa. PS-kustannus

### *Learning Methods*

Book exam

### *Assessment*

Grading based on a scale of 1–5.

# General information for students

This section of the Study Guide contains general information about studies and services for students. For further information, please turn to teachers, student counsellors, international coordinators and the personnel at the Student Affairs Office and International Office.

- Living expenses
- Accommodation
- Meals
- Health care and social security
- Students with special needs
- Insurances
- Financial support for students
- Student support services and student counselling
- Premises and equipment
- International relations
- Practical information for international students
- Language courses
- Practical placements
- Free time and social activities
- Student Union SAMO

## Living expenses

The Seinäjoki University of Applied Sciences does not charge any tuition fees. However, students have to cover their living expenses (accommodation, meals, free time and social activities). Students also have to pay for textbooks and other study material as well as travel between accommodation and faculty.

With the student card students can get some discount at the National Railways (VR), the Bus Transportation Company (Matkahuolto) and in some restaurants, department stores and smaller shops.

More information available concerning the international comparison of prices and costs of living expenses:  
[www.stat.fi/til/kvvh](http://www.stat.fi/til/kvvh)

## Accommodation

The Marttilan Kortteeri organisation offers housing services to students in Seinäjoki and also assists international students with their housing arrangements. Marttilan Kortteeri has several modern places of residence for students, consisting of one, two or three-room flats at moderate rent. The student flats are conveniently located and well equipped. There is an internet access in each accommodation. Also a joint gym, sauna etc. are available for the students. New students will be informed of the application procedure when they register at the institution. International students will be informed also by the international co-ordinators.

Notice that you have to pay the rental fee for an entire month even for periods shorter than a whole month. For further information, please turn to the Marttilan Kortteeri –office, see the website or visit student affairs and international affairs offices.

### *Marttilan Kortteeri Office*

Address: Puskantie 31 A  
FI- 60100 Seinäjoki  
Telephone: +358 6 420 4800  
E-mail: [asuntotsto@marttilankortteeri.fi](mailto:asuntotsto@marttilankortteeri.fi)  
[www.marttilankortteeri.fi](http://www.marttilankortteeri.fi)

Internet connections are available in the Seinäjoki University of Applied Sciences' library (SeAMK Library), in the faculties, in some student flats and in Internet cafes in town.

The School of Agriculture and Forestry, Ilmajoki Unit provides its own student accommodation in the vicinity of the school. The apartments consist of four double rooms with a shared kitchen and bathroom. The school facilities are at students' disposal. These include a student restaurant, launderette, sports hall, fitness centre and sauna.

The School of Agriculture and Forestry, Ähtäri Unit (asuntola.tuomarniemi@seamk.fi) and the Business School, Kauhajoki Unit also offer student accommodation at a reasonable price.

The School of Culture and Design in Jurva offers student housing, both in the vicinity of the school and in the centre of the village.

Tuppiroska Oy provides accommodation for students of the Business School, Kauhava Unit. The dormitory comprises one and two-room flats as well as flats for several students, with a shared kitchen and bathroom, but single study/bed rooms. Tuppiroska Oy also rents out two-room flats in blocks of flats at a short walking distance from the school. <http://www.tuppiroska.fi/>

## Meals

Each institute has a student canteen that serves lunch at subsidized student prices. Student flats have kitchens where meals can be prepared.

## Health care and social security

### *School health nurse and physician*

Each of the faculties has a public-health nurse on duty on certain days of the week. Your tutor will inform you of the office hours. In Finland, a person with a health problem or injury must first go to the local municipal health centre (terveyskeskus) by making an appointment with a physician/medical doctor. Seinäjoki University of Applied Sciences has also its own physician with whom you can make an appointment through the school nurse. If there is a need for special treatment, a medical doctor in the health centre will write a referral to a specialist in a hospital (sairaala) in the City of Seinäjoki. If the matter is urgent you should go to the emergency (päivystys) at the health centre, which is open from early morning until late evening. The emergency at the hospital in the City of Seinäjoki is open during the night hours.

EU citizens are entitled to the same health care services as Finnish citizens. The health care centre in Seinäjoki charges about 12 euro per visit or a yearly payment of about 24 euro.

If you come from an EU/ETA country or from Switzerland, you should bring a European Health Insurance Card with you. Students from the Nordic countries, who stay more than 6 months in Finland, must apply for the Inter-Nordic Migration Form. Students from other countries should consult embassies or consulates about the matter. Since September 1, 2007 international degree and exchange students coming from outside the EU/ETA countries need a health insurance of at least 100.000 euros for getting a visa, if they study in Finland for more than three months. The value of the insurance can be lower (60.000 euros) if the student stays in Finland for more than six months. We advise also exchange students and international degree students coming from the EU/ETA countries to have a private personal health insurance to cover unexpected injury, sickness, etc., also during their free time and travelling. Treating such injuries or illness can be quite costly in Finland.

School Health Nurse for the international degree students: Ms Terhi Kimpimäki (terhi.kimpimaki@seamk.fi). Address: Keskuskatu 32 (I-House). Open: Wednesday 12 a.m. –4 p.m. In acute situations international students have to contact the school health nurse in their own school.

### *Private medical doctors*

There are various private clinics in the City of Seinäjoki and in other surrounding towns and municipalities. It costs about 50 euros to consult a private doctor. In the phone book private clinics are listed under the title 'lääkäreitä' (medical doctors). Appointments with private medical doctors are expensive as well as hospital fees. So, please check the coverage of your insurance.

***Dentist***

A municipal dental clinic is located in Seinäjoki in the K-house in the Campus area. Dental care is not free for students, but it is less costly at the municipal dental clinic than at private clinics. You will find a list of dentists in the phone book under the title 'hammaslääkäreitä' (dentists).

***Pharmacies***

Finnish pharmacies (apteekki) have an excellent range of medicines and other medical products available without prescription. Without prescription (resepti) you can buy e.g. mild painkillers, skin-care products, flu medicines and get help with many other minor disorders. However, to get a prescription, you must always make an appointment to see a medical doctor.

***Psychologist***

The Seinäjoki University of Applied Sciences offers psychologist services by appointment.

Ms Pirkko Viitasaari

Visiting address: Keskuskatu 32 I (Campus area I house)

Tel. +358 6 425 5582

pirkko.viitasaari@seamk.fi

Please ask for more information about health care matters from the school health nurse in your own faculty / unit.

The Seinäjoki University of Applied Sciences has a student insurance, which covers students while they study, also including practical placement, but not during their free time. Students who are planning an exchange period abroad are advised to check their insurance with the international coordinator of the faculty.

**Students with special needs**

As far as the facilities of the institution are concerned, more attention has been paid to the needs of physically impaired persons in the last few years. Foreign students with a physical disability planning to study at the Seinäjoki University of Applied Sciences should contact the personnel at the international affairs office in advance for information about the facilities available for studies and accommodation.

**Insurances**

The Seinäjoki University of Applied Sciences has insurance for students, which covers students while they study, also including practical placement, but not during their free time. Students who are planning an exchange period abroad are advised to check their insurance with the international coordinator of the faculty. All the needed documents are obtainable from the international co-ordinator of the faculty.

If you come from an EU/ETA country or from Switzerland, you should bring a European Health Insurance Card with you so that you can get the same health care services than the Finnish citizens. We also advise exchange and international degree students coming from the EU/ETA countries to have a personal private health insurance to cover unexpected injury, sickness, etc., also during their free time and travelling. Students from the Nordic countries, who stay for more than 6 months in Finland, must apply for the Inter-Nordic Migration Form.

Since September 1, 2007 international degree and exchange students coming from outside EU/ETA countries need a health insurance at least 100.000 euros for getting a visa, if they study in Finland for more than three months. The value of the insurance can be lower (60.000 euros) if the student studies in Finland for more than six months. Students from countries outside EU/ETA should consult embassies or consulates about this matter.

## Financial support for students

International students are not eligible for the state financial aid. Students who are not citizens of Finland but live in Finland on a permanent basis for purposes other than studying are eligible for student financial aid. They must be registered as permanent residents in the Finnish population register system. The purpose of residency in Finland is determined by reference to such matters as the residence permit, registration or acceptance to an educational institution. Foreign residents must attach the OT 10 form to their application for financial aid. (<http://www.kela.fi>)

For more information, please contact Ms Päivi Marjomäki, Secretary of the Board of Financial Support for Students, Seinäjoki UAS  
P.O. Box 412 (street address: Keskuskatu 34, 2nd floor, Campus building)  
FI-60101 Seinäjoki  
Tel. +358 20 124 5008  
Fax +358 20 124 5022  
[opintotukilautakunta@seamk.fi](mailto:opintotukilautakunta@seamk.fi)

The home institution(s) of international exchange students may offer scholarships or other financial aid to them. The Seinäjoki University of Applied Sciences offers yearly ten scholarships for international students having their practical placement in the Seinäjoki region. Also some African students receive a grant from the national North–South–South Programme. The International co-ordinators and International Office will inform students concerning different types of grants.

## Student support services and student counselling

All of the teachers, tutoring students, international coordinators, Student Affairs Offices, International Office and libraries are responsible for student counselling and student support services. Student counselling is coordinated in the faculties by the student counsellors, international co-ordinators and teachers who are responsible for practical training.

### *Offices for students affairs*

Every faculty and unit has its own Student Affairs Office, which offers services related to student admissions, enrolment, studies, study certificates, and financial aid. There are some variations in the offices' opening hours. Students must inform the Student Affairs Office of changes in address and other personal information. International exchange students must inform the international coordinator of changes in their personal information.

### **SCHOOL OF AGRICULTURE AND FORESTRY**

#### *Ilmajoki Unit (Agriculture)*

Ilmajoentie 525  
FI-60800 Ilmajoki  
Tel.: +358 20 124 5700  
Fax: +358 20 124 5701  
[maa@seamk.fi](mailto:maa@seamk.fi)  
Open: Monday–Friday 8 a.m.– 11:30 a.m.

#### *Ähtäri Unit (Forestry)*

Tuomarniementie 55  
FI-63700 Ähtäri  
Tel.: +358 20 124 5800  
Fax: +358 20 124 5801  
[metsa@seamk.fi](mailto:metsa@seamk.fi)  
Open : Monday–Thursday 8 a.m. – 4 p.m., Friday 8 a.m. – 2 p.m.

### **BUSINESS SCHOOL**

#### *Seinäjoki Unit*

Koulukatu 41  
FI-60100 Seinäjoki  
Tel.: +358 20 124 5400

Fax: +358 20 124 5401  
liiketalous@seamk.fi  
Open: 9 a.m. – 1:30 p.m. and every other Tuesday 4 p.m. – 6 p.m.

*Kauhava Unit (Entrepreneurship)*

Kauppatie 109  
FI-62200 Kauhava  
Tel.: +358 20 124 5000  
Fax. +358 20 124 5388  
yrittajyys@seamk.fi  
Open: Monday–Friday 9 a.m. – 11 a.m. and 12 p.m. – 3 p.m.

*Kauhajoki Unit (Food Management)*

Topeeka 47  
FI-61800 Kauhajoki  
Tel. +358 20 124 5600  
Fax +358 20 124 5601  
ravitsemissala@seamk.fi  
Open: Monday–Friday 10 a.m. – 2 p.m.

**SCHOOL OF CULTURE AND DESIGN**

kulttuuri@seamk.fi

*Jurva Unit (Design)*

Kotikouluntie 1  
FI-66301 Jurva  
Tel.: +358 20 124 5900  
Fax: +358 20 124 5901  
Open: Monday–Thursday 11 a.m. – 3 p.m., and Friday 10 a.m. – 1 p.m.

*Frami Unit (Cultural Management, Library and Information Services)*

P.O.Box 416/Kampusranta 9 A  
FI-60101 Seinäjoki  
Tel. +358 20 124 4946  
Fax +358 20 124 5986  
Open: Monday–Friday 10 a.m. – 12 p.m.

*Törnävä Unit (Conservation)*

Törnäväntie 26  
FI-60200 Seinäjoki  
Tel.: +358 20 124 5312  
Fax: +358 20 124 5337  
Open: Monday–Friday 10 a.m. – 2 p.m.

**SCHOOL OF HEALTH CARE AND SOCIAL WORK**

P.O. Box 158  
FIN-60101 Seinäjoki

*Keskuskatu Unit (Social Work)*

Visiting address: Keskuskatu 32 E  
FI-60100 Seinäjoki  
Tel.: +358 20 124 5100  
Fax: +358 20 124 5101  
sosiaali@seamk.fi  
Open: Monday–Friday ad. 12.15 p.m.

*Koskenala Unit (Health Care)*

Visiting address: Koskenalantie 17  
FIN-60220 Seinäjoki  
Tel.: +358 20 124 5157  
Fax: +358 20 124 5151  
terveys@seamk.fi  
Open: Monday–Friday 11:30 a.m. – 1 p.m.

## ***SCHOOL OF TECHNOLOGY***

### ***Frami Unit***

P.O.Box 64/Kampusranta 9 A  
FI-60101 Seinäjoki  
tekniikka@seamk.fi

1st floor A150.3  
Tel. +358 20 124 4950, Fax. +358 20 124 4909  
Open: Monday–Friday 8.45 a.m. – 12.15 p.m.

3rd floor A310.8  
Tel. +358 20 124 4903, Fax. +358 20 124 4909  
Open: Monday–Friday 8.45 a.m. – 12.15 p.m.

### ***Campus Student Affairs Office and Admissions Office***

P.O. Box 412 (visiting address: Keskuskatu 34, Campus House, 2nd floor)  
FI-60101 Seinäjoki, Finland  
Tel.: +358 20 124 5023, +358 20 124 5018, +358 20 124 5147  
Fax: +358 20 124 5022  
opintotoimisto@seamk.fi  
hakutoimisto@seamk.fi

There is a joint Student Affairs Office and Admissions Office in the Campus building. The Campus Student Affairs Office offers services related to studies, study regulations and student financial aid. The Admissions Office provides guidance to applicants applying to the Seinäjoki University of Applied Sciences. The office is open 8 a.m. – 3.45 p.m.

### ***Admissions Office for the degree programmes conducted in English***

P.O. Box 412 (visiting address: Keskuskatu 34, Campus House, 2nd floor)  
FI-60101 Seinäjoki, Finland  
Tel.: +358 20 124 5208  
Fax: +358 20 124 5022  
admissions@seamk.fi  
www.admissions.fi

## ***Career services***

The faculties are responsible for services for both students and employers. The most important objective of the services is to help students step into the working world as smoothly as possible. Career services provide a wide range of information and assist in career planning. They also provide information concerning the job market and various types of placements for practical training.

The Seinäjoki University of Applied Sciences has joined the national online recruitment service of the Finnish Universities of Applied Sciences ([www.jobstep.net](http://www.jobstep.net)) where students may register as job seekers submitting a CV, which consists of a detailed history of their work experience and other activities.

Career services for the international students, for instance contact seminars with the employers, will be offered by the International Office, too.

## ***Student pastor***

The Seinäjoki University of Applied Sciences has its own student pastor:

Ms Aila Orsila  
Visiting address: Keskuskatu 32 I (Campus area I House)  
aila.orsila@seamk.fi

**Student counselling**

Student counselling promotes the objectives of learning at the institution and aims to assist students in developing various facets of their personality. Guidance and counselling is based on the idea that an individual assumes primary responsibility for his/her studies. The guidance and counselling relationship is based on the ethics of professional service and aims at helping students with their professional development and personal life. Students are important both as individuals and as team members. The academics responsible for student counselling are primarily the heads of the degree programmes, other teachers, the student counsellor, the international coordinator of the faculty/unit and the International Office. The contents of each course are best explained by the lecturer(s) who teach the course in question.

**Student counsellors**

School of Culture and Design	Ms Tuija Huusko, tel. +358 40 8304 227
Business School	<i>Seinäjoki Unit:</i> Ms Ulla Autio, tel. +358 20 124 5416 <i>Kauhava Unit:</i> Ms Raija Rauma, tel. +358 40 8304 214 <i>Kauhajoki Unit:</i> Ms Virpi Antila, tel. +358 20 124 5621, +358 40 830 4208
School of Agriculture and Forestry	<i>Ilmajoki Unit:</i> Ms Anu Katila, tel. +358 20 124 5747 <i>Ähtäri Unit:</i> Mr Jorma Toopakka, tel. +358 20 124 5814, +358 40 830 4137
School of Health Care and Social Work	<i>Keskuskatu Unit:</i> Ms Katriina Honkala, tel. +358 20 124 5108 <i>Koskenalantie Unit:</i> Ms Tellervo Pihlaja, tel. +358 20 124 5180
School of Technology	Ms Piia–Mari Riihilahti, tel. +358 20 124 4929 Mr Ismo Tupamäki, tel. +358 20 124 4923

E–mail address for the student counsellors: forename.surname@seamk.fi

**International study counselling**

The aim of international study counselling is to support outgoing and incoming students, professors and staff members, as well as foreign and all other degree students. The aim is to integrate internationalisation in studies and to promote home internationalisation as well. The personnel associated with international affairs are responsible for international study counselling, together with other faculty members. There is an international coordinator in each faculty. The International Office is located in the Campus building.

**International Office:**

Manager of International Affairs, Ms Helli Kitinoja: helli.kitinoja@seamk.fi  
Coordinator of International Affairs, Ms Tiina Välimäki: tiina.valimaki@seamk.fi  
Coordinator of International Affairs and Communications, Ms Maria Loukola: maria.loukola@seamk.fi  
Project Manager, Ms Anne–Maria Mäkelä: anne–maria.makela@seamk.fi  
Financial Secretary of International Affairs, Ms. Essi Korkiakoski: essi.korkiakoski@seamk.fi

**International co–ordinators for the faculties:***School of Agriculture and Forestry*

Mr Heikki Koskimies (Ilmajoki Unit: agriculture): heikki.koskimies@seamk.fi  
Ms Pirkko Kivinen (Ähtäri Unit: forestry): pirkko.kivinen@seamk.fi

*Business School*

Ms Ritva Leppänen (Seinäjoki Unit): ritva.leppanen@seamk.fi  
Ms Marjo Arola (Kauhava Unit): marjo.arola@seamk.fi  
Ms Kirta Nieminen (Kauhajoki Unit): kirta.nieminen@seamk.fi

*School of Culture and Design*

Ms Eija Pennanen: eija.pennanen@seamk.fi



### *School of Health Care and Social Work*

Ms Helinä Mesiäislehto–Soukka (Koskenala Unit: health care): [helina.mesiaislehto-soukka@seamk.fi](mailto:helina.mesiaislehto-soukka@seamk.fi)

Ms Helena Järvi (Keskuskatu Unit: social work): [helena.jarvi@seamk.fi](mailto:helena.jarvi@seamk.fi)

### *School of Technology*

Mr Tapio Pihlajaniemi: [tapio.pihlajaniemi@seamk.fi](mailto:tapio.pihlajaniemi@seamk.fi)

## ***Tutoring students***

Seinäjoki University of Applied Sciences has students who are trained for tutoring the new students especially at the beginning of their studies. The tutor offers peer–guidance and supports the new student to live in a new environment and start studies in the Seinäjoki University of Applied Sciences. The student tutors also participate in the promotion of their faculty.

## ***Guidance related to practical placements***

It is important for the students to build up links to the working life and companies during their studies. It is possible when students are doing their project studies, when they are visiting companies, doing their practical training and final thesis or participating in the seminars related to the working life.

In each faculty there are persons who are responsible for guidance related to the practical placements, also the Heads of the Degree Programmes help the students in planning the practical training. Students can get information concerning working life also from the Internet ([www.kitkatta.net](http://www.kitkatta.net)), this information is in Finnish. The Finnish Universities of Applied Sciences have also a joint career and recruitment service Jobstep ([www.jobstep.net](http://www.jobstep.net)), also in the English language. The Jobstep also helps you to write your curriculum vitae in an electronic form.

## **Premises and equipment**

The Seinäjoki University of Applied Sciences has five faculties. Two of the faculties (School of Health Care and Social Work, School of Technology) are situated in the City of Seinäjoki, one of them (School of Culture and Design) partly in Seinäjoki and in Jurva, one (School of Agriculture and Forestry) partly in Ilmajoki and Ähtäri and one faculty (Business School) partly in Seinäjoki, Kauhava and Kauhajoki. The Seinäjoki University of Applied Sciences and its faculties offer students an excellent environment, including modern technology and equipment, in which to study. Studying abroad is also part of the learning process and opportunities are available to students through the Seinäjoki University of Applied Sciences' international network.

## ***Information systems services***

The Seinäjoki University of Applied Sciences belongs to the national FUNET network (Finnish University and Research Network). Upon acceptance of the FUNET guidelines, students receive an e–mail address and a username/an identification code for the information systems network. The username and pin–code are personal and should not be used by anyone else. All users are responsible for using the information systems services according to that which is set forth in the data security guidelines, <http://www.epedu.fi/kayttosaannot>. Students may use their personal e–mail address and username throughout their studies. Once a student has graduated, the username will function for 14 days, and the codes will be discarded from all of the faculties' information systems. The codes for the Winha study management system will also be discarded from the faculties' Student Affairs Offices.

The e–mail system utilized at the Seinäjoki University of Applied Sciences is Microsoft Exchange and students can use their e–mails through the Outlook Web Access at <https://mail.seamk.fi>. The e–mail address is usually [forename.surname@seamk.fi](mailto:forename.surname@seamk.fi).

Students will also receive a personal username/identification code for the Winha study management system at <https://winha.seamk.fi>.

## ***Virtual learning centre***

The virtual learning centre of South Ostrobothnia region supports the learning process through new technology.

## International relations

### *Goals of the international studies*

Studies at the Seinäjoki University of Applied Sciences are characterised by internationalisation. This involves interaction with foreign countries, partner institutions and international working life. During their studies, students will gain skills and competencies required in international environments (enterprises, development projects, contacts with customers from foreign cultures). Students will also learn the importance of internationalisation for the regional development. In addition to language skills and cultural knowledge, today's professionals need to know how to make use of the latest research results and ICT technology. Higher education should also provide students with broader perspectives, a better understanding of the various sectors of society, willingness to change, and flexibility. The Ministry of Education has awarded the Seinäjoki University of Applied Sciences three times for its international activities.

### *Home internationalisation*

The prerequisites for internationalisation include language skills and knowledge and understanding of different cultures. In addition to the basic language studies (the official languages Finnish and Swedish and in addition one or two foreign languages), students may choose optional language courses. Asian languages and cultures have recently been of special interest; the latest trend has been an increasing need to study about South America and the Spanish language. Home internationalisation, international aspects in the curriculum and professional studies are the main priorities in education. The institute recognises that which is set forth in the Bologna Process in implementing internationalisation in education and research. The European Credit Transfer and Accumulation System (ECTS) is used and all the graduated students are given a Diploma Supplement (DS).

### *Student mobility*

Seinäjoki University of Applied Sciences has institutional partnership contracts with about 170 partner Universities in the European countries and about 30 partners in the other continents. Erasmus cooperation with European partner universities began in 1993, and cooperation with Chinese partner universities began in 1995. One year later cooperation began with partner institutions in African, in 1997 with the United States, Canada and Japan, in 1998 with Latin America and in 2007 with India and Vietnam. Each year, approximately one fifth of the degree students study abroad at least one semester. In addition, one-third of the students study for shorter periods abroad.

Practical training abroad is another form of internationalisation. Students may also do their thesis work abroad. The average length of a study period abroad is five months. The most popular destinations are Germany, Spain and the Baltic countries. Other countries that attract students from Seinäjoki University of Applied Sciences include the United States, Asian countries, such as China, Japan, South Korea, Vietnam and India, African countries, such as Uganda, Kenya and Zambia, as well as the eastern European countries and Argentina. Grants are awarded to support students and staff mobility, mainly from the European Union programmes. Moreover, students may apply for a scholarship in their own institution. Students who are planning an exchange period abroad are advised to check their insurance with the international coordinator of the faculty. Outgoing students have to visit also the Kela office before the exchange period to get the needed documents (Y39, E128, E111 and the European Health Card). Students also have to visit the School Health Nurse of their own faculty, so that they can make a plan for injections.

Every year, about 200 international students from partner institutions study or complete their practical training at Seinäjoki University of Applied Sciences. Orientation and Finnish language teaching as well as social programme in cooperation with the student union will be offered for the international students. In addition there are more than 100 international degree students.

### *Teaching in English*

Seinäjoki University of Applied Sciences offers courses equivalent to 900 ECTS taught in English. These studies are available for the Finnish students as well as for the international students. The Business School has a Bachelor degree programme in International Business and a Master programme in International Business Management conducted completely in English. The School of Health Care and Social Work has Nursing degree programme totally taught in English. There are also one semester programmes taught in English in each Faculty. The programmes are primarily intended for exchange students from the partner universities, but also for the Finnish students.

***International R&D projects and international conferences***

Seinäjoki University of Applied Sciences has about 20 international research and development projects yearly. Students studying at the institute may join these projects as part of their thesis or practical training. The Seinäjoki University of Applied Sciences hosts an international conference and two or three international seminars each year. Students can work as conference assistants in these international conferences and seminars and get a certificate for that.

***International guidance, counselling and tutoring***

Heads of the degree programmes, teachers, student tutors, international coordinators and student advisers provide assistance for both incoming and outgoing students. All of the faculties have staff for handling international affairs, and there is also an International Office in the Campus building. The study guides and homepages on the internet ([www.seamk.fi](http://www.seamk.fi)) are important sources of information for international students. The international coordinators, other staff and students provide their support to students from other countries in planning their studies and making the best of their stay in Finland. Finnish students gain a wealth of important knowledge of different countries and cultures by tutoring foreign students and learning from their experiences.

If a student needs personal counselling, (s)he should make an appointment with the international co-ordinator in his/her faculty/unit. The coordinators can be contacted by e-mail: [forename.surname@seamk.fi](mailto:forename.surname@seamk.fi).

***International Office:***

Manager of International Affairs, Ms Helli Kitinoja: [helli.kitinoja@seamk.fi](mailto:helli.kitinoja@seamk.fi)  
 Coordinator of International Affairs, Ms Tiina Välimäki: [tiina.valimaki@seamk.fi](mailto:tiina.valimaki@seamk.fi)  
 Coordinator of International Affairs and Communications, Ms Maria Loukola: [maria.loukola@seamk.fi](mailto:maria.loukola@seamk.fi)  
 Project Manager, Ms Anne-Maria Mäkelä: [anne-maria.makela@seamk.fi](mailto:anne-maria.makela@seamk.fi)  
 Financial Secretary of International Affairs, Ms. Essi Korkiakoski: [essi.korkiakoski@seamk.fi](mailto:essi.korkiakoski@seamk.fi)

***International co-ordinators for the faculties:******School of Agriculture and Forestry***

Mr Heikki Koskimies (Ilmajoki Unit: agriculture): [heikki.koskimies@seamk.fi](mailto:heikki.koskimies@seamk.fi)  
 Ms Pirkko Kivinen (Ähtäri Unit: forestry): [pirkko.kivinen@seamk.fi](mailto:pirkko.kivinen@seamk.fi)

***Business School***

Ms Ritva Leppänen (Seinäjoki Unit): [ritva.leppanen@seamk.fi](mailto:ritva.leppanen@seamk.fi)  
 Ms Marjo Arola (Kauhava Unit): [marjo.arola@seamk.fi](mailto:marjo.arola@seamk.fi)  
 Ms Kirta Nieminen (Kauhajoki Unit): [kirta.nieminen@seamk.fi](mailto:kirta.nieminen@seamk.fi)

***School of Culture and Design***

Ms Eija Pennanen: [eija.pennanen@seamk.fi](mailto:eija.pennanen@seamk.fi)

***School of Health Care and Social Work***

Ms Helinä Mesiäislehto-Soukka (Koskenala Unit: health care): [helina.mesiaislehto-soukka@seamk.fi](mailto:helina.mesiaislehto-soukka@seamk.fi)  
 Ms Helena Järvi (Keskuskatu Unit: social work): [helena.jarvi@seamk.fi](mailto:helena.jarvi@seamk.fi)

***School of Technology***

Mr Tapio Pihlajaniemi: [tapio.pihlajaniemi@seamk.fi](mailto:tapio.pihlajaniemi@seamk.fi)

***Student Union SAMO***

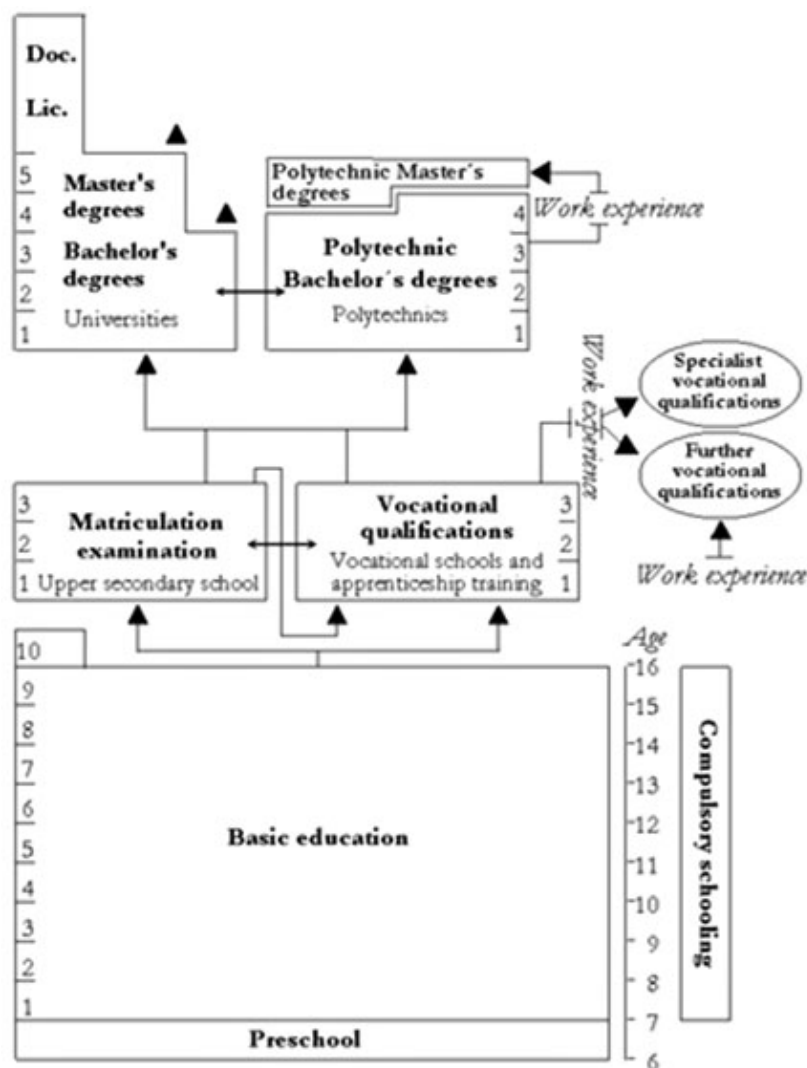
[kv.samo@seamk.fi](mailto:kv.samo@seamk.fi)

**Practical information for international students****Finnish educational system**

The educational system in Finland is made up of a 9-year comprehensive school, general or vocational secondary-level education, and higher education. Independent organisations, evening schools, vocational institutions and higher education institutions (HEIs), such as universities and universities of applied sciences, provide adult education. Finnish higher education consists of two parallel sectors, the relatively new university of applied sciences sector and the university sector. [www.minedu.fi](http://www.minedu.fi)

The formation of the university of applied sciences began in 1991, and today there are 26 of them in Finland. The purpose of universities of applied sciences is to raise the standard of higher professional education, carry out applied research based on the current needs of the working world and to support other regional development.

Students acquire both theoretical knowledge and practical training in their own field. Finnish degrees obtained at universities of applied sciences are equivalent to Bachelor's and Master's degrees in most of the European Union' member states. Studies at a university of applied sciences are characterised by varied teaching and learning methods. The amount of traditional lecturing has been reduced and the institutions emphasise the students' responsibility for their own studies. In modern society, the amount of information increases and diversifies constantly. Therefore, it is important that students adopt the idea of lifelong learning and independent search for information during and after their studies. Studies lead to degrees, which are higher-education degrees for demanding tasks in the working world. The Ministry of Education defines the content of the degrees and the degree titles.



## Finnish Educational System (Ministry of Education)

### Facts about Finland

*Population:* 5.3 million

*Total area:* 338.000 km<sup>2</sup>, one of the largest countries in Europe. Three-quarters of the area is covered with forests, most of which are evergreen. Another characteristic feature in Finland is the multitude of lakes (about 200.000 lakes in all), especially in the central and eastern parts of the country. The northernmost part of Finland, Lapland, lies north of the Arctic Circle.

*Population density:* 17 inhabitants / km<sup>2</sup>

*Capital:* Helsinki with 550.000 inhabitants

*Other major cities:* Espoo, Tampere, Vantaa, Turku, Oulu

*Languages:* Official languages are Finnish (92 %), and Swedish (5.5 %). English is widely spoken.

*Religion:* Evangelical Lutheran (82 %), Orthodox (1 %), other (1 %), no religious denomination 16%

*Form of government:* Parliamentary republic since 1917; President: Ms Tarja Halonen 2000–. The head of state is the President and the legislative body is the unicameral Parliament (Eduskunta), which is made up of 200 members elected every four years.

*Member of the EU:* since 1995. Co-operation with the other Nordic countries has always been active in political, economic, social and cultural matters. Finland has also maintained good political and commercial relations with Russia.

*Currency:* the euro (EUR)

Finland is situated in northern Europe, surrounded by Sweden in the west, Norway in the north, and Russia in the east and Estonia in the south. The climate is not as cold as its northern location might imply. However, temperatures below zero degrees centigrade in winter are not uncommon. Summers are light and warm, and in the northern part of the country the sun does not set at all for a few weeks. The average temperature varies between –6 in January and +21 in July (Helsinki).

Industrialisation began in Finland in the 19th century, and particularly rapid growth took place after World War II. Traditionally, the forestry and wood processing industries have played a central role in the economy. Other important industrial fields include electrical and metal engineering, the chemical and textile industries. Today, many Finnish companies are known for their high-tech products. As in most advanced industrial economies today, the greater part of Finland's output is produced in the service sector.

## ***Coming to Finland***

### ***Passport***

All foreigners excluding citizens of the Nordic countries need a valid passport to enter Finland. Citizens of the Nordic countries may arrive, reside, study and work in Finland without limitations. They do not need visas, residence or work permits. See <http://www.formin.fi/Public/>

### ***Visa***

Students from the EU countries and a number of other countries do not need a visa to enter Finland. Other international students must apply for a visa at the Finnish embassy or consulate in the country of permanent residence. A visa is needed if a student is required to participate in an entrance exam in Finland prior to being accepted at the educational institution, or if he or she is a citizen of a country that has not signed an agreement on the abolition of visas with Finland. Since the visa allows for only a short stay, a student who has taken the entrance examination must return to his or her home country and apply for an actual residence permit before returning. See <http://www.formin.fi/Public/>

Since September 1, 2007, international degree and exchange students coming to Finland from outside EU/ETA countries and studying there for more than three months, have needed a health insurance at least EUR 100.000 for getting visas. The value of the insurance can be lower (EUR 60.000) if the student studies in Finland for more than two years. Students from the countries outside the EU/ETA should consult embassies or consulates about this matter.

### ***Residence permit***

A residence permit is needed if a person's stay exceeds three months. Citizens of the Nordic countries do not need a residence permit. EU citizens and equivalent persons do not need a residence permit, but they must register at the local police office in Finland for their right to reside in Finland if their stay lasts longer than three months. Students coming from countries other than the Nordic countries may need to provide proof of funding. Similar regulations on the right of free movement that apply to citizens of EU member states also apply to those from Iceland, Liechtenstein, Norway and Switzerland. Hence, the citizens of these states are equated with EU citizens.

Students from other countries can apply for their residence permits from the Finnish diplomatic mission in their home country. The Finnish government does not usually fund the stay of foreign students in Finland. Therefore, applicants must show that their income is secured either with a scholarship, a grant or other funds with which they can support themselves during the academic year. Applicants must have a minimum of EUR 500 per month to cover their living expenses. In some cases, applicants may simply indicate that funds are available for transfer from their home country to Finland by means of a reliable banking connection. If the educational institution offers free tuition, accommodation and meals, the required amount may be reduced. Funding for students participating in an exchange programme between a Finnish and foreign university may be arranged through the exchange programme.

The residence permit is usually granted for one year at a time. Getting an extension for the residence permit requires that a student is still registered at the educational institution, is a full-time student and has completed the required courses in the institution's study programme. If the student has poor study performance, an extension of the residence permit may be denied. The application for an extension of the residence permit is submitted to the local police in Finland. See <http://www.formin.fi/Public/>

### ***Work permit***

EU citizens and persons from Iceland, Liechtenstein, Norway and Switzerland can work while studying in Finland and do not need to apply for a special work permit to do so.

The residence permit for study purposes allows students from other countries to work within certain limits, i.e. the work is part of their practical training required by the degree programme, or if the amount of part-time work does not exceed 20 hours per week. Students may take full-time employment during holidays when the educational institution does not arrange teaching as such; in practice, this is usually during summer and Christmas vacations.

Wages earned through part-time work during the academic year may, on the discretion of the authorities, reduce the amount of money that a student is required to possess during his or her studies. When applying for the first residence permit, promised employment or a signed contract of employment cannot reduce the required amount of permitted funds. See <http://www.formin.fi/Public/>

### ***Travelling in Finland***

The airports nearest to the City of Seinäjoki are located in Rengonharju (10 km from the Seinäjoki City Centre) and Vaasa (70 km from Seinäjoki). A flight from the Helsinki airport to the Rengonharju airport takes less than one hour. International students travel to Seinäjoki and the surrounding areas primarily by train, which takes less than three hours from Helsinki, or by their own car. Finland has right-hand traffic with overtaking on the left. It is compulsory to use seatbelts in cars. Young people may receive their driver's licence at the age of 18. Vehicles must use their headlights at all times, even during the day. Using mobile phones in vehicles requires hands-free devices. Drunken driving is a criminal offence; so if you drink you don't drive.

## **Language courses**

In addition to the basic language studies students may choose optional, advanced language courses in Seinäjoki University of Applied Sciences. There are also virtual language courses. Seinäjoki University of Applied Sciences offers language courses in English, Swedish, German, French, Spanish, Portuguese, Russian and Finnish as a foreign language.

Seinäjoki University of Applied Sciences has a Language Centre, which supports high-level language teaching and interaction between the Institution and the working life, it helps also staff members in the tasks related to the languages.

*The Language Center of Seinäjoki University of Applied Sciences*

Address: Business School, Koulukatu 41, 60100 Seinäjoki

Ms. Heli Simon, Coordinator of languages

[heli.simon@seamk.fi](mailto:heli.simon@seamk.fi), tel. +358 20 124 5415 or +358 40 830 4129

Mr. Päivö Laine, Principal Lecturer of languages

[paivo.laine@seamk.fi](mailto:paivo.laine@seamk.fi), tel. +358 20 124 5409 or +358 40 830 4175

## **Practical placements**

It is important for the students to build up links to the working life and companies already during their studies. It is possible when students are doing their project studies, when they are visiting companies, doing their practical training and final theses or participating in the seminars related to the working life. Practical training in the University of Applied Sciences is a supervised learning period in real working life. During a training period a student gets to know working methods and working environment and has an opportunity of professional interaction with the customers. Quite often a final thesis is related to the practical training.

Students are supported to find their practical placements by themselves. Only in the School of Health Care and Social Work and in the School of Agriculture the academic staff is responsible in offering the placements for the students. In each faculty there are persons who are responsible for guidance related to the practical placements, also the Heads of the Degree Programmes help the students in planning the practical training. Students can get information concerning working life also from the Internet ([www.kitkatta.net](http://www.kitkatta.net)), this information is in Finnish. The Finnish Universities of Applied Sciences have also a joint career and recruitment service Jobstep ([www.jobstep.net](http://www.jobstep.net)), also in the English language.

Seinäjoki University of Applied Sciences has also an Incubator for start-up companies of the students. There are already more than one hundred start-ups of the students of Seinäjoki UAS.

More information: Ms. Helena Hannu, Project Manager

[helena.hannu@seamk.fi](mailto:helena.hannu@seamk.fi), tel. +358 20 124 5261 or +358 40 830 4238

## Free time and social activities

### *Seinäjoki*

Seinäjoki is the centre of Ostrobothnia and has developed into the centre of a province with 200.000 inhabitants. The population of Seinäjoki is about 57,000 and its industrial structure is service oriented.

Life in Seinäjoki is dynamic. A wide variety of educational institutions are located in the city, and it offers commercial, administrative and cultural services to the entire surrounding area. The city is known for its numerous events also. In midsummer, the Tango Festival invites friends of light music to a cheerful dance and music event. Provinssirock was a forerunner of the Finnish rock festival culture already three decades ago, and every summer in June it gathers tens of thousands of music lovers to Törnävänsaari.

The Seinäjoki City Theatre attracts large audiences, even by national standards. The complex of the administrative and cultural buildings in Seinäjoki is known world wide as the Aalto Centre. Built in the 1960s, it houses the Lakeuden Risti church (Cross of the Plain), City Hall, the City Library and the Government Office Building. This milieu, designed by architect Alvar Aalto, represents Functionalism at its best, and is appreciated by admirers and experts of architecture.

Sports are very important to Seinäjoki, both at the championship level (Finnish baseball, wrestling, floorball, football, rugby, speedway, etc.) and in the provision of facilities for fitness enthusiasts. A full-length, artificial ice rink, artificial gravel grass, beaches, ski slope and various other sports facilities offer a variety of choices.

Student life is lively, too. In addition to sports facilities, students will find a wide variety of art and culture, from ballet to concerts and visual arts. Nightlife is varied and includes discos and pubs popular among students.

Connections to Seinäjoki from other parts of Finland are excellent. Trains from Helsinki to the north pass through the Seinäjoki railway station. Seinäjoki has about 25 train services daily, and from the Rengonharju airport, several flights a day to Helsinki. The distance from Seinäjoki to Vaasa is 80 km, to Helsinki 350 km, and to Tampere 180 km.  
www.seinajoki.fi

### *Ilmajoki*

Ilmajoki is situated in the centre of Ostrobothnia. Ilmajoki has the typical Ostrobothnian landscape with low-lying, fertile fields and a number of barns, referred to as the 'sea of barns'. The Ostrobothnian plain is split by the river Kyrönjoki, which runs through effectively cultivated farmlands. Ilmajoki has approximately 11,700 inhabitants and an area of 609 km<sup>2</sup>. The nearest towns are Kurikka (15 km), Seinäjoki (20 km) and Vaasa (70 km).

Ilmajoki is rich in tradition; you can get acquainted with Ostrobothnian heritage at the House Museum of Yli-Laurosela, for example. Ilmajoki is also a vigorous cultural municipality, which is famous for its Music Festival in early summer. Agriculture is an important source of livelihood, but there are also numerous small and medium-sized businesses operating in a wide variety of fields. The most renowned company in Ilmajoki is Primalco Corporation in the village of Koskenkorva. Primalco produces raw materials for the alcoholic beverage, Koskenkorva, named after the village.  
www.ilmajoki.fi

### *Kurikka / Jurva*

Jurva belongs to the City of Kurikka, it has about 4,700 inhabitants and it is 55 km from Seinäjoki. Jurva is famous for its furniture industry; most of the furniture in Finland is made there. There are 300 furniture companies in the municipality employing a total of ca. 500 people. The School of Culture and Design was founded in 1911 and is one of the most esteemed schools of craft skills in Finland. The school specialises in the Scandinavian way of carving wood.

The municipality provides a range of public services such as a health centre with medical and dental services, as well as police, postal and bank services. There are also various private services available, such as shops, hotels and restaurants.

A wide range of recreational facilities are also available. You can exercise in the sports hall located in a local school, or in the indoor sports facilities at the School of Culture and Design. Close to the school, there is a running track, where you can ski in winter. The Säläsjärvi lake, with its public swimming facilities, is located next to the running track. A sauna on the camping site can be rented for private use. In the winter, you can try winter swimming, too. The Lintula riding farm is an interesting place for horse enthusiasts. A motor racing track and a rifle range are located next to the farm.

The civic college offers other hobbies as well. The college offers a wide range of courses, so there is something for everyone: language studies, dance and music, art subjects ranging from restoration to bookbinding, etc.

Jurva also has two drama clubs offering performances to the public. Art lovers can visit exhibitions in the local library throughout the year. Furthermore, the School of Culture and Design exhibits its activities at its annual spring exhibition. [www.kurikka.fi](http://www.kurikka.fi)

### ***Kauhajoki***

Kauhajoki is the service and industrial centre in the southern–most part of South Ostrobothnia where agriculture plays an important role in the economy. Rustic, South Ostrobothnian culture, modern service and the information society meet here. Commercial and administrative services of the southern part of the region are concentrated in Kauhajoki, and for this reason the municipality is famous for its high, urban–like standard of services. By area, Kauhajoki is the largest municipality in South Ostrobothnia with 14,700 inhabitants. It is located 58 km from Seinäjoki, 100 km from Vaasa, and 160 km from Tampere. The distance between Kauhajoki and Helsinki is 360 km. There are direct bus connections to all the nearby towns every day. The quickest connections from southern Finland, e.g. Helsinki, are by train via Seinäjoki and from there by bus.

Colourful events such as the Kauhajoki Food Fair and the Nummirock festival attract thousands of visitors to Kauhajoki each year. The Kauhajoki Food Fair is of particular importance to the institution because it is the initiator of this great event. Kauhajoki also has sights related to Ostrobothnian rural culture and Finnish history. [www.kauhajoki.fi](http://www.kauhajoki.fi)

### ***Kauhava***

Kauhava is a young, dynamic town in the northern part of South Ostrobothnia. It was granted its town charter in 1986. The town has always been famous for its entrepreneurship. This has further strengthened the position of Kauhava as a commercial and service centre. Kauhava has good road connections, as the town is located on highway 19 and on the main road 63, Kauhava–Ylivieska. Moreover, Kauhava has an excellent airport. Kauhava is 400 km from Helsinki, 80 km from Vaasa and 40 km from Seinäjoki.

A tourist visiting Kauhava can admire the slow river and the vast 'sea of barns' among other things. Other sights include the Kauhava church, completed in 1925, the Rise of the Steath–knife statue in front of the city hall, and the monument to the Fouga fighter. The annual event called Airmen's Midsummer gathers 20.000 people together at the airport to celebrate Midsummer. Kauhava is also well–known for the Air Force Flight School.

The Air Force Flight School offers the town and its inhabitants tremendous facilities for various aviation. In addition to aviation the youthful town provides facilities for ice hockey, volleyball, football and a variety of other sports. The Kauhava Civic College provides excellent opportunities for further education in foreign languages and in manual skills for those who are eager to study during their leisure time as well. [www.kauhava.fi](http://www.kauhava.fi)

### ***Ähtäri***

Ähtäri is located in Suomenselkä, in the eastern part of the South Ostrobothnia province, and is known for its high–quality tourist services and as a town of many events. The population of Ähtäri is about 7,000. Its total area is 906 square kilometres, of which 103 square kilometres is covered by lakes. The nearest airports are in Jyväskylä and Seinäjoki and the nearest seaport in Vaasa (165 km). Distances to the more important centres: Turku 310 km, Helsinki 330 km, Tampere 160 km, Seinäjoki 80 km, and Jyväskylä 120 km. There are connections by road and by train to the above destinations. The nature in Ähtäri, with its forests and water–ways, provides diverse opportunities for outdoor activities and tourism in nature. In addition to the excellent sports facilities at Tuomarniemi, Ähtäri offers many other facilities.

Ähtäri offers many cultural and athletic services and events year–round. The city library has a mobile library which visits Tuomarniemi weekly, and two branch libraries. Sights include Ähtäri Wildlife Park, a domestic animal park, Villa Pohjola, Pirkanpohja Art Centre, an automobile museum, a local arts–and–crafts museum, Koskela ceramics and Ähtäri church. Local events are Ähtäri Snow Weeks, Ähtäri Night Rowing, Summer Market, Travellers' Christian Summer Days, the charismatic Open Road event and the Buster Triathlon. [www.ahtari.fi](http://www.ahtari.fi)



## SAMO: Student Union of the Seinäjoki University of Applied Sciences

Seinäjoki University of Applied Sciences has a student union called SAMO derived from the Finnish title Seinäjoen ammattikorkeakoulun opiskelijat ry. SAMO is the common student union within the institution. In addition, every school has its own student association. SAMO was founded to bring together student associations in the faculties and individual students, to protect the rights and benefits of students and to organise events for students attending Seinäjoki University of Applied Sciences. The cafés in the faculties, as well as the bookstores, stationery shops and copying machines are mainly run by the student associations. The services are offered at competitive prices, so it is worthwhile to use these services.

SAMO Student Union participates in tutor activities. The tutors initiate students into studying at the Seinäjoki University of Applied Sciences and the region. Students can turn to them for assistance and they provide students with advice. All tutors have done tutor training. SAMO has a student who is responsible for international affairs. This person is responsible for the social programme and, together with the staff of the international office and international coordinators of the faculties, tends to international issues concerning students in Seinäjoki UAS. To contact him or her, please send an e-mail to: kv.samo@seamk.fi.

SAMO Student Union and the student associations participate in various recreational, cultural and sports events. Sports tournaments between faculties are common, such as indoor bandy and indoor baseball. Get-together in the evenings counterbalance studying in a pleasant way, adds another aspect to student life. Members are granted a discount on the entrance fee for some of these events. Furthermore, SAMO arranges a special social programme for international degree and exchange students. Both SAMO's and SeAMK's websites have more information about the latest social programme. SAMO publishes also its own magazine called "SAMOlainen" which tells about SAMO's events and topics concerning students.

Students are advised to join the student association when arriving in the Seinäjoki region, because membership in the student association and the SAMO Student Union offers students various benefits. They tend to students' interests and offer assistance in questions related to their studies, and help them save money in the form of various discounts. Upon membership, students receive a student card, with which they may receive discounts on train (Finnish Railways) and bus tickets (Matkahuolto), as well as on Sampo insurance. The International Student Card entitles students to only some of these discounts. In addition to nationwide advantages, the SAMO Student Union has arranged discounts on the services and products of local companies. The discount lists are posted on the student associations' notice boards. To become a member, students must fill out the application form for the student card at the student association office.

Membership fee of the SAMO Student Union:

- one academic year: 20 euro
- one semester: 12 euro
- the period of the whole 3.5-year degree programme: 55 euro
- the period of the whole 4-year degree programme: 60 euro
- membership card for the new member: 5 euro

SAMO has its own office on campus, which is open during the day. The General Secretary is available in the office every day and students may get help from him with any problems connected with their studies.

The Office of the Student Union SAMO is located in the Campus House

Visiting address: Keskuskatu 34, first floor. Open: Monday–Friday 9 a.m. – 3 p.m.  
 Telephone/Fax +358 20 124 5039  
 E-mail: samo@seamk.fi  
 www.samo.fi