KEMI-TORNIO POLYTECHNIC

ECTS
STUDY GUIDE
2000-2001

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ECTS Guidebook 2000-2001: Greetings from the Rector

I would like to congratulate you on the place you have achieved at Kemi-Tornio Polytechnic. You are no doubt aware of the work and the challenges ahead of you; however, you can rest assured that the efforts you and your fellow students will make here, individually and together, will be rewarding and fulfilling in terms of furthering your professional and other skills in the future. I would therefore like to heartily welcome you to our team!

Kemi-Tornio Polytechnic prides itself on the success with which it has striven for a competitive edge. Our operations began as a polytechnic in 1997, and we achieved our first expansion (into the cultural sector) the year after. The five units, as they are known within the institute, are in the sectors of technology, business and management, social work, health care and culture. The range of disciplines dealt with in the polytechnic means that young people come here to study with the aim of becoming engineers, BBAs, nurses, public health nurses, physiotherapists, social work professionals, visual and media artists. There are excellent opportunities to attend courses from other units in a flexible, versatile manner.

Special emphasis has been placed on the quality aspects behind education and the operations of the polytechnic. The student is viewed as a client and customer who must receive a high quality of service. In practice this means using multiform educational methods, as well as regular dialogue with and collection of feedback from the students. The Quality Handbook of Kemi-Tornio Polytechnic has been approved and put into active use with this in mind; and the quality of education and training is under a continuous process of assessment and improvement (an example of this being the internal assessment conducted by the units themselves in 1998). We also participate in the external assessments carried out by the Finnish Ministry of Education.

The activities of the Student Union (Ketoakku) are valuable and deserve the full support of the directors of Kemi-Tornio Polytechnic. With its own office and a full-time secretary general, the Union has found it possible to generate and improve these activities from both an ideological and a commercial point of view. There are very important reasons for having such a focus of student activity; too often we find that especially new students are only aware of what is going on in their own unit. The other units and indeed the polytechnic as a whole will become more familiar if you participate in the activities run collectively by the Student Union. This is an excellent way of expanding your circle of friends and of ensuring that your stay in the Kemi-Tornio area is even more enjoyable.

I hope that you will find applying yourself to your studies a stimulating and rewarding experience here in the polytechnic, and that you will avail yourself of the opportunities that we provide for building your future; you can rely on the support we will give you and the efforts we will make on your behalf. To this end, I hope that this ECTS Study Guide will provide you with valuable help for carrying out your studies. I wish you the best of success in the coming academic year and beyond.

Yours,
Hannu Törmä
Ph.D. (econ.)
Rector

1. GENERAL ECTS INFORMATION

What is ECTS?

ECTS, the European Credit Transfer System, was developed by the Commission of the European Communities. The aim of ECTS is to provide common procedures to guarantee academic recognition of studies abroad. It also provides a way of measuring and comparing learning achievements, and transferring them from one institution to another through the use of common ECTS credits and ECTS grading scale. ECTS also provides a better access to information on foreign curricula.

The ECTS system is based on three core elements: (1) the information package which provides general information on the host institution as well as detailed descriptions of the degree programmes and courses available; (2) the application form and learning agreement which describes the programme of study abroad and is drawn up by the individual student and institutions involved before the student goes abroad; (3) the transcript of records shows the learning achievements of the student prior to and after the period abroad. It also shows every course taken by the student and the number of ECTS credits completed as well as including the grades according to the local and ECTS grading scale.

The ECTS system concerns mainly those educational institutions which have the Institutional Contract (IC) and, therefore, also mainly ERASMUS students. However, also other international exchange students are welcome to take advantage of this guide when planning and carrying out their studies.

ECTS credits and grades

ECTS credits are a numerical value allocated to course units to describe the student workload required to complete them. ECTS credits reflect the quantity of work each course requires in relation to the total quantity of workload required to complete a full year of academic study at the institution, for example lectures, practical work, seminars, independent study – in the library or at home – and examinations or other assessment activities. ECTS is thus based on a full student workload and not limited to contact hours only. In ECTS, 60 credits represent the workload for a full academic year of study; normally 30 credits are given for a semester and 20 credits for a term.

Examination and assessment results are usually expressed in grades. There are many different grading systems in Europe. The ECTS grading scale has been developed in order to help institutions translate the grades awarded by exchange students. This provides additional information on the student's performance to that provided by the institution's grade but does not replace the local grade. Higher education institutions make their own decisions on how to apply the ECTS grading scale to their own system.

ECTS/ERASMUS students

Usually students studying abroad and taking advantage of the ECTS system will attend a single host institution in a single EU member state, study there for a limited period and then return to their home institution. It is also possible to stay at the host institution and earn a degree there or

even proceed to the third institution to continue studies. In all three cases students will be required to comply with the legal and institutional requirements of the country and the institution where they take their degrees.

The ECTS system measures the student's workload. Students participating in this system will receive credits for all academic work successfully carried out at any of the ECTS partner institutions. They will be able to transfer these academic credits from one participating institution to another on the basis of prior agreement on the content of study programmes abroad between students and the institutions involved. Transfer of credits will take place when students complete the programme of study at the host institution and return to their home institution. Because of the ECTS system a student will be able to continue the study programme without any loss of time or credit.

Students selected by each institution to be accredited according to the ECTS system are entitled to a student mobility grant if they fulfil the general conditions of eligibility for the ERASMUS grant.
The requirements are:

- Students must be citizens of an EU member state or citizens of an EFTA member state or citizens of the following countries: Cyprus, Poland, Romania, Slovakia, Slovenia, Hungary, Bulgaria, The Czech Republic, Lithuania, Latvia and Estonia.

- Students shall not be required to pay a tuition fee at the host institution. The student may, however, be required to continue to pay his /her normal tuition fees to the home institution during the stay abroad.

- The national grant/loan to which a student may be entitled for study at his/her institution may not be discontinued, interrupted or reduced while the student is studying in another Member State and is receiving ERASMUS grants. (Insurance premiums, student social contributions and material costs do not count as tuition fees at the host institution).

- The period of study at the host institution may not last less than three months nor more than a year.

ECTS in Kemi-Tornio Polytechnic

The general principles of the ECTS system are complied with in the Kemi-Tornio Polytechnic. The polytechnic cooperates with institutions of higher education in Europe, Russia, the United States and China. Several international exchange programmes (Socrates, Leonardo da Vinci and Nordplus) help students and staff to find places abroad, as well as assisting foreign students in coming to the Kemi-Tornio Polytechnic. Due to the polytechnic's commitment to both internationalism and student and staff exchange, it has become more important to guarantee academic recognition of studies abroad.

There are both degree and non-degree programmes in English in Kemi-Tornio Polytechnic
The degree programmes in English are:
- Cross-Border Engineering (240 ECTS credits/160 credits)
- Euro-Economics Education (210 ECTS credits/140 credits)
- Information Systems Specialist Education (210 ECTS credits/140 credits)
- Degree Programme in Health Care and Nursing (210 ECTS credits/140 credits)

The international non-degree programmes in English are:
  · Gateway Education (30 ECTS credits/20 credits)
  · China as a Market Area (60 ECTS credits/40 credits)

In addition a Degree Programme in Social Education and Social Care and one in Visual and Media Arts as well as degree programmes in Business and Administration are introduced in this guide although they are taught in Finnish. More detailed information on the education programmes will be provided later. The Kemi-Tornio Polytechnic's ECTS guide is also available on the Internet: http://www.tokem.fi/amk/ects/

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2. FINLAND

Finland in brief

History

Finland and the Finnish national consciousness have been moulded by the country's location between East and West. In the 13th century Finland became a part of the kingdom of Sweden and remained so for several centuries. Finns fought in the Swedish army in many wars, often against Russia. In 1809, after Sweden had lost the war with Russia, Finland was ceded to Russia and became an autonomous Grand Duchy within Tsarist Russia, its Grand Duke being the Tsar himself. During the 19th century Finnish national feeling grew stronger. In 1906 Finland succeeded in establishing a new constitution based on equal and universal suffrage; Finnish women were the first in Europe to be given the vote. After the October Revolution in Russia (1917), Finland declared itself independent on 6th December 1917.

During World War II Finland managed to retain its independence in the so called "Winter War" and "Continuation War" against Russia. Since the war Finland has pursued a policy of neutrality and military non-alliance. Finland is a parliamentary republic with a multiparty political system. Finland's key economic sector is manufacturing - principally the wood, metals, engineering, telecommunications and electronics industries. Also human welfare is highly important issue in the Finland of today. Finland has been a member of the European Union since the beginning of 1995 and will assume the presidency of the European Union Council in July 1999.

Geography

Finland is situated in northern Europe between the 60th and 70th parallels of latitude. The total land area is approx. 338 000 square kilometres. The quarter of its total area lies north of the Arctic Circle. Finland's neighbouring countries are Sweden to the west, Norway to the north, Russia to the east and Estonia to the south, across the Gulf of Bothnia. Much of the country is lowland but high rounded fells form the landscape in the most northern part of the country, Lapland. Other outstanding features of Finland's scenery are its myriad lakes and islands.

People

The population of Finland is a little over 5 million. About 500 000 people live in the capital, Helsinki. The overall population density is 16 persons per square kilometre, yet the density in southern Finland, in the capital area, is almost 136 persons per square kilometre. The official languages are Finnish and Swedish. Most of the people speak Finnish; Swedish is spoken as a mother tongue by about 6% of the people. Approximately 90% of the people are Lutherans while just under 1% belong to the Finnish Orthodox Church.

Climate

The climate is marked by cold winters and warm summers but temperatures in winter are moderated by the influence of the Baltic Sea and west winds from the Atlantic warmed by the Gulf Stream. The mean annual temperature is about 5.5°C in southwestern Finland, decreasing towards the northeast. In winter, the mean temperature remains below 0°C. Winter usually begins in mid-October in Lapland and during November in the rest of Finland. In summer, the mean daily temperature is consistently above 10°C. Summer usually begins in late May in southern

Finland and lasts until mid-September. Summer in Lapland starts in June and ends a month earlier than on the south coast. In spite of the Kemi-Tornio region's northern location the climate in the region is still mild due to the effects of the Gulf Stream. The average temperature of the year is about +2°C, in July from +15 to +18°C and in February from -10 to -15°C. Snow covers the area from the early of November until the end of April.

Kemi-Tornio region

Kemi

Kemi is one of the oldest permanently-inhabited areas in Finland. The city itself, which grew up around the wood-processing industry, was founded on 5th March, 1869. The population of the city is about 24 000 and the land area of the city is 90,7 square kilometres.

Kemi concentrates mainly on wood industry and is the most important industrial city in Lapland for almost half of Lapland's industry is located in Kemi. Besides the wood-processing industry the city of Kemi has begun to encourage new industries. The number of high-tech industries, dealing for example with information and environment technology, has increased, and Kemi's geographical position offers many possibilities for developing tourism. For example, the world's biggest snow castle is located in Kemi. Kemi is Lapland's sea town, sometimes called Lapland's gateway to the south, with two active deep water harbours which operate throughout the year. In the 1980s Kemi also developed into a service and education centre of the province.

Tornio

The two neighbouring towns of Tornio in Finland and Haparanda in Sweden have a long history in common. In 1809 the border between Sweden and Russia was drawn up along the Tornio-Muonio River and the 17th-century trading town of Tornio was divided into two. Tornio is situated at the end of the Gulf of Bothnia in northern Finland. Tornio received its town charter in 1621 and since then it has served not only the entire Tornio river valley but also, to a large extent, Lapland. Tornio has been one of the most famous market centres of Northern Scandinavia since the Middle Ages. The population of the city is about 23 000 and the surface area of the city is 1227 square kilometres.

The main means of livelihood in the area are industry and services. The Outokumpu steel factory, situated in Tornio, is nationally important and the steel produced there is of world-class standard. Tornio's oldest industrial enterprise is the Hartwall Brewery which produces Lapin Kulta beer. Also some textile industry is situated in Tornio.

Regional cooperation

The towns of Kemi and Tornio, as well as Haparanda across the border in Sweden, have a combined population of approximately 75.000. Today the region has an important role as a link between East and West, as well as the North and the South of Europe.

In addition to the geographical location these towns share, the region has several common cooperation actions. The interaction between the towns is constant especially in terms of economic life. For example the Kemi-Tornio Area Development Agency promotes the interests of the area and coordinates the development of industries and services by voluntary cooperation between the municipalities.

3. INFORMATION ON THE FINNISH EDUCATIONAL SYSTEM

The Finnish educational system in a nutshell

THE FINNISH EDUCATIONAL SYSTEM
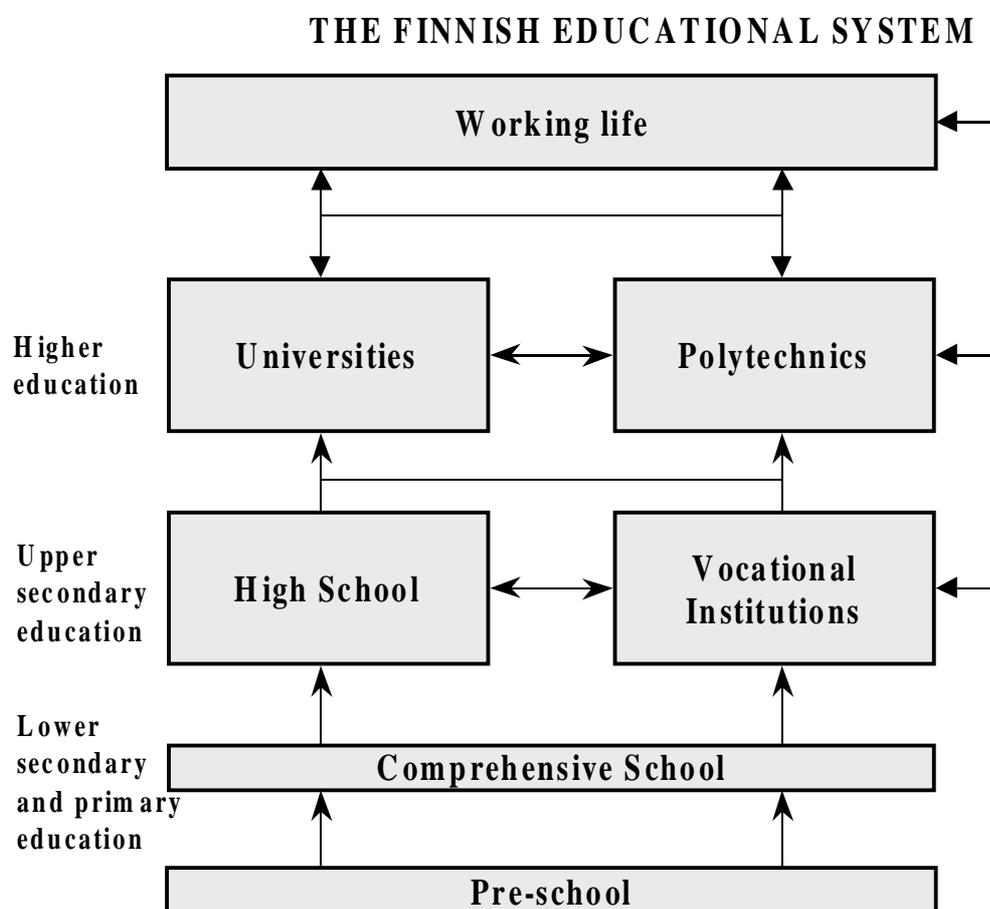
According to a new law all children aged 6 are entitled to participate in pre-school without paying for it. All children receive compulsory basic education at comprehensive schools between the ages of 7 and 16. After completing the comprehensive school education is voluntary. Students may go to the upper secondary school which, provides three years of general education, or to vocational education lasting from two to five years. These education forms give a general qualification for both polytechnic and university studies.

Credits and Grades

Finnish undergraduate education is organised according to a national credit system. The quantity of student's workload is measured in credits. One credit represents approximately 40 hours of work. One academic year's full-time study is equivalent to 40 credits. Converting Finnish credits to ECTS credits simply means multiplying the Finnish credit value by a factor of 1.5 to obtain the equivalent ECTS credit value; for example for a full academic year of study the student obtains 40 Finnish credits which is equivalent to 60 ECTS credits. Examination and assessment results are usually expressed in grades. The national grading scale for polytechnic studies is *1-5*. The grade 5 means that the student's performance was excellent and correspondingly the grade 1 means satisfactory/sufficient. Sometimes results can be expressed verbally: **passed/failed**

GRADING SCALE		
ECTS scale		Local scale
A	Excellent	5
B	Very Good	4
C	Good	3
D	Satisfactory	2
E	Sufficient	1
FX	Fail	Fail
F	Fail	

Excellent - outstanding performance with only minor errors.
Very good - above the average standard but with some errors.
Good - generally sound work with a number of notable errors.
Satisfactory - fair but with significant shortcomings.
Sufficient - performance meets the minimum criteria.
Fail - some more work is required before the credit can be awarded.
Fail - considerable further work is required.

Polytechnics in the educational system

The Polytechnic Act was passed by Parliament at the beginning of 1995. In Finland polytechnics form a non-university sector which operates alongside the university sector. The principles underlying polytechnic education derive from the need for a highly-trained expert work force in the labour market. This is why polytechnics offer a more practical alternative to university education. Courses differ from those at university in that they reflect the practical needs of working life and therefore polytechnics have numerous links with local business and communities. It can be said that in polytechnic education there are theory and practice in balance. Internationalization is one of the polytechnic's main development priorities, and international experience can be gained either by taking study courses or through on-the-job training abroad.

The extent of polytechnic degree programmes is usually 140 or 160 credits and the duration of studies is from 3.5 to 4 years. Degree programmes consist of basic studies, professional studies, elective studies, practical training, and a bachelor's thesis. The degree programmes also include communication and language studies. Polytechnics also provide non-degree programmes on different kind of topics.

The minimum admission requirements for polytechnics is one of the following:
· upper secondary education
· matriculation examination
· the International Baccalaureate exam
· the *Reifeprüfung* exam
· at least three years basic vocational education.

In addition, polytechnics arrange their own aptitude tests in many disciplines.

4. KEMI-TORNIO POLYTECHNIC

General description of the Polytechnic

Kemi-Tornio Polytechnic was established in August 1992 and received its permanent status in August 1997. The Polytechnic is situated in Finnish Lapland, near the Swedish border. The polytechnic is made up of five units which specialise in different areas of education. These units are located in the neighbouring towns of Kemi and Tornio. The strength of Kemi and Tornio lies in their location in Northern Finland; the polytechnic is a gateway between the Barents region in Northern Russia and the rest of Europe.

At the moment there are about 2300 students in the Kemi-Tornio Polytechnic and the staff consists of approximately 270 persons. A Finnish polytechnic degree is equivalent to degrees obtained in corresponding institutes of higher education in other European countries. In the Kemi-Tornio Polytechnic as in all the Finnish polytechnics, studies are organised into degree programmes, and the education places weight on contacts with business, industry and services, especially at the organisational level. The polytechnic degrees are designed to meet the changing requirements and development needs of the world of work, having a pronounced professional emphasis, and qualifying graduates for various expert duties. The guiding principles of the polytechnic's curriculum are internationalism, multidisciplinarity, professional skills and students placement in working life.

Polytechnic studies require students to demonstrate independent initiative and take responsibility for their own study results. It is possible for students to choose courses from different education units and programmes within the polytechnic, for instance individual courses can be chosen also from non-degree programs as well as from degree programs. In addition, through domestic and international cooperation with other education institutes a wide range of study opportunities are achieved and students are able to carry out their personal study plans based on their own needs. In polytechnic studies several teaching and learning methods are used, for example lectures, practical work, teamwork, seminars, workshops and independent study. Also projects dealing with different kind of topics are carried out in cooperation with working life.

Rector's Office

The Rector's Office provides the students and staff with support services in the Polytechnic. The Service centre is situated in Kemi. The permanent staff of the office consists of about 15 members including the rector, secretaries, International Officer, System Manager, Career Co-ordinator, Study Affairs Officer etc.

The Learning Centre, which provides library and information services and additionally looks after some projects dealing with the fields mentioned above, is also located in the Rector's Office. Furthermore, every Educational Unit has a faculty library. The Internet, e-mail, an on-line library and modern work stations are freely available for all students.

The Careers and recruitment service operates both in the Learning Centre in Kemi and in Porthania Tornio. The Careers and recruitment service works as a link between the polytechnic's students and working life. One of its main aims is to promote cooperation and networking between the polytechnic and the world of employment. For students, it provides education and concrete help with the job-seeking process, and for enteprises it is a good way to recruit a skilled workforce.'

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The International Department and cooperation

The role of the International Department is to create and develop the polytechnic's internation-alization strategy. It is responsible for linking international operations to the polytechnic's stud-ies and research. To this end the department, through its International Officer, takes care of Leonardo da Vinci and Socrates Programme cooperation and develops the business and work-ing life in the region. The list of Erasmus partner schools is attached at the end of the guide.

International Officer Annikki Pulkkinen provides more detailed information on international education programmes (Socrates/Erasmus, Leonardo da Vinci and Nordplus) and advises on questions concerning both student and staff exchange.

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The International Department of the polytechnic participates in and coordinates several national and international projects. An important part of them is research and development projects re-lated to the information society largely funded by the EU. In this regard, cooperation with lead-ing information and communications technology companies such as Sonera (formerly Finnish Telecom) and ICL is also highly important to the polytechnic. The projects also benefit teaching by offering both further education possibilities for teachers, and traineeships or topics for the bachelor's thesis for students as well as student mobility.

The department staff consists of 16 members looking after 15 international projects. The staff has expertise especially in projects involving telematics, and was especially active in the 4th Framework Programme (Telematics Applications Programme) of the European Commission. This expertise is now concentrating on selected projects under the 5th Framework Programme. The projects deal with the following topics, for example Telematics Applications, Information Society Technology, Tourism, Tele-Health Care, Telemedicine, Distance Education, Collabo-rative Learning and Working, Teleworking, Rural Areas and Digital Sites. The department has approximately 200 cooperation partners, for example in many EU countries, Norway, Russia, USA, Hubgary, Slovakia, China and Japan.

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Research and development

The aim of research and development is first of all to support and improve teaching and learning, and secondly to strengthen the relationship between the polytechnic as well as working life in the region and to improve entrepreneurship. The first aim includes activities like producing new material for education in networks and updating the existing material.

The other aim includes activities such as cooperating on projects with working life. The goal is to support the operation and productivity of enterprises and to acquire new know-how for these enterprises: for instance, in product development and surveys. These projects are usually carried out by the students and they are supervised by the teachers and the staff from enterprises as there is generally no extra staff for research and development activities in the education units of the polytechnic.

A bachelor's thesis is a produced work where a student or a group of students present their know-how and skills in the field of specialisation. The volume of this work is 15 ECTS credits per student and it takes about half a year to complete it. Before the bachelor's thesis the students are trained in conducting research and development. For instance in the educational field of business and administration, these R&D studies include project work, scientific writing and the basics of empirical research and development work. This last item includes research methods and analysis of work. The work is supervised by the senior teachers and other teachers. Native language teachers supervise scientific writing (reporting) and the main advisor controls the progress of the work. Bachelor's theses are more and more commonly being written as projects and they are the most significant parts of research and development in the polytechnic. At a subsequent time the abstracts of such thesis work are made available to networks in English. The very best theses are further refined into publications (only in Finnish).

Several teams are working inside the polytechnic on developing the internal processes of the institute. The results of this work are published in our own publication series. For instance, developing the curriculum is a continuous process and it is done by the curriculum team. The most important teams are the quality team and research and development team.

The Polytechnic has recently developed strategy for its R&D-activities. The main goals are to develop our own know-how for R&D together so that students are involved in real projects and we can develop our own region and its economics.

Library and Information Services
http://www.tokem.fi/amk/kirjasto/

General information

The Kemi-Tornio Polytechnic consists of six different units: the Unit of Management and Commerce, the Unit of Business and Data Processing, the Unit of Technical Education, the Unit of Health Care and Nursing, the Unit of Social Care and the Unit of Visual and Media Arts. Each of the units has its own library.

The services and collections are available to anyone; however the computers are only for the students and the staff of Kemi-Tornio Polytechnic. The students can use the computers for doing their Bachelor´s thesis and other reports, for example.

The Polytechnic has its own network, ToKemNet, which connects all six units and their libraries. From the workstations connected to the network it is possible to connect to the public libraries in the area, the Polytechnic's own collection (http://www.tokem.fi/amk/kirjasto/kullero.html), various science library collections, on-line and CD-ROM databases, electronic journals and the Internet.

Opening hours

Library units have different opening hours. You can get information about opening hours in library units, in leaflets and in the Internet: http://www.tokem.fi/amk/kirjasto/muut/palvelut/aukioloajat/aukioloajat.html
Library units are always closed on the last Friday of the month at 12.00.

The library material

The library consists of approximately 72 000 books, 600 domestic and international magazines and newspapers, and a growing audio-visual collection. All the documents are organised using a computer system called Pallas. The Kullero-database (http://www.tokem.fi/amk/kirjasto/kullero.html) is shared between the six units of the Polytechnic, Kemi and Tornio public library and the College of West Lapland.

The library has access to various Finnish and foreign databases. The National Electronic Library (FinELib) offers a wide variety of information retrieval and document delivery services. Since the beginning of 1999 more than 5000 electronic journals such as ABI/INFORM journals, Academic Press Journals, EBSCO scholarly journals, Ovid Nursing Collection journals, Springer LINK and IEL Online journals, and databases have been available and, of them, over 2400 are full-text journals.

The collection contains literature in several fields like economics, logistics, economy, information technology, accounting, foreign trade, social welfare, health care, social and education science, electrical power engineering, mechanical engineering, automation technology, etc.

Library card, lending, borrowing, renewing

The customer will get a library card by filling the application and certificating his/her identification. The first library card is free. A library card issued by any Kullero library is valid in Kemi-Tornio Polytechnic library units. The library lends books and other material for home loans. The reference items for night and weekend loans are available. Journals are mostly available for library use only.

The borrowing of the library's own collection is free of charge. The loan period for books is generally 2 weeks. The loan period for other material varies according to the library units. Loans can be renewed at the desk or by phone or by Internet (http://www.tokem.fi/amk/kirjasto/kullero.html). The loans which are borrowed more than ten times must be returned to the library.

Interlibrary lending

The library provides its customers with interlibrary loans and copies of such documents that are not available locally. The public libraries in the area also provide inter-library loans.

The library follows the directions set by library that lends books or articles. Inter-library lending is mainly liable to charges. Fees for inter-library lending (http://www.tokem.fi/amk/kirjasto/muut/maksut/maksut.html).

Information services

When students first arrive at the Polytechnic they are shown how to use the libraries and search for information. Additional help and information is also given at important times such as the start of the student's individual diploma work. However, help can be obtained at any time, as the library staff are always available to assist students.

The library and information services provide customers with advice in the use of the library collection and information resources. The staff in the library are available to assist in the search for literature from different information sources and are also trained to teach students how to use the various databases, resources and systems. The information service performs information retrieval on commission both online and manually on various fields. (http://www.tokem.fi/amk/kirjasto/muut/tietokannat/tietokannat.html)

The advice given by the library in the use of library resources and databases is free. No fee is charged for limited information searches, either. A fee is charged for all assignments that require the use of fee-based online databases. Orders can be placed in electronic form. http://www.tokem.fi/amk/kirjasto/POSTIA_KIRJASTOLLE/tiedonhakupyynt_/tiedonhakupyynt.html.

Computers and reading areas

The library has approximately 200 reading places and it offers its customers 80 PCs that are on the polytechnic local area network. In the PCs there are word-processing, spreadsheet computation, graphic and other programmes. There are connections to the Internet from every PC. The PCs can be reserved in advance using the reservation calendars next to each PC.

The computers are for the use of the students and of the personnel of Kemi-Tornio polytechnic.

Hardware/software, telecommunication, teleservices

The Kemi-Tornio Polytechnic has about 800 PCs, Unix /NT Servers and NT workstations. All PCs have full Internet access. Several portable computers can be connected to the polytechnic's network and the Internet with GSM mobile phones. In addition opportunities to study and work through ISDN are provided. The polytechnic has five ISDN videoconference systems. Some members of the staff even use ISDN or ADSL-based connections and videoconference systems at home.

The polytechnic has its own 2Mb ISDN connection for remote PCs. For distance students the polytechnic has 20 PCs with ISDN cards and some of them also have the option of desktop videoconference located in the municipalities of Western Lapland. The polytechnic also has several UNIX, LINUX and NT servers with WWW database (Internet, Intranet).

Local libraries (cities, schools) are available in the polytechnic's Web-based library system. The polytechnic has several CD-ROM and online databases which can be used via the network.

The new ATM-based network technology is used between the units of the polytechnic, 32 Mbits/ 100 Mbits/155 Mbits. Our polytechnic is a part of the FUNET network (Internet of universities and polytechnics).

The polytechnic belongs to the Kemi-Tornio-Haparanda regional network which operates both in Finland and Sweden. A WWW-based connection to the student administration system will be introduced and it will provide students, for instance, with an opportunity to order extracts from the record of credits.

5. THE EDUCATION UNITS OF THE POLYTECHNIC

The Unit of Management and Commerce / The Unit of Business and Data Processing

The Unit of Business and Data Processing in Tornio and the Unit of Management and Commerce in Kemi give expertise in data-processing, the Internet, business administration, marketing, accounting and finance, logistics and tourism. The aim is to produce highly-skilled graduates for the Nordic Region and the international work market. New technology, multiplicity and distance learning are widely used.

A Bachelor of Business Administration combines theory, practice and individual experience, and qualifies graduates for planning, expert and managerial posts, as well as many professional tasks requiring a high standard of expertise. The business education is based on demands arising from business and industry. These abound; the business world is under constant pressure from changes, especially in the northern parts of Nordic Countries. Active and close contacts with business and industry guarantee that education lives in the real world. Doing R&D projects which originate from business and industry, students get first-hand knowledge of their professional field and working life realities. Enterprises in turn can commission research projects and studies at a low cost.

At total some 730 students study in day and evening programmes. The education field of management and business has a staff of 80. The business studies are characterized by their practical orientation and freedom of choice. BBA degree programmes take 3.5 years (210 ECTS credits/ 140 Finnish credits).

The Units offers five (5) degree programmes, with several specialisations available.

1. Business Administration
   International Business Operations, Business Activities and Marketing, Economic and Technical Studies, Finance and Financial Management, Management Accounting, Data Management and Data Communication, Travel and Tourism Development, Marketing Communications and Telematics.
   These are all in Finnish and a short description of the content is provided in the guide.

2. Data processing
   EDP analyst and System Planner, Software Expert and Instructor, Commercial Information Technologies (in Finnish, not in this guide).
   Information System Specialist (language of instruction is English)

3. **Euro-Economics Education** (teaching is given in English)

4. Product Development and International Marketing
   This programme is carried out in cooperation with the Unit of Technical Education.
   The programme is in Finnish and a short description of the content is provided in the guide.

5. Logistics
   In cooperation with the Unit of Technical Education.
   The programme is in Finnish and a short description of the content is provided in the guide.

The Department of Adult Education in the field of management and business education arranges *circa* 22 000 hours annually. Modern technology is utilised in flexible and distance education. The courses offered are: Basic vocational education, Occupational courses for commerce and industry, On-the-job training courses, Employment courses, Open University and Polytechnic courses, Language carousel, Entrepreneurial Development Centre, MBA programme.

Both units provide library and information services in their own libraries. Students have a good opportunity to use computers, also outside the scheduled hours, to work with their assignments etc.

Postal address:
KEMI-TORNIO POLYTECHNIC
The Unit of Management and Commerce
Marina Takalon katu 3
94100 Kemi, Finland
Tel. +358 16 258201, fax +358 16 258 297
E-mail: info@tokem.fi
http://www.tokem.fi/amk/hakake/

KEMI-TORNIO POLYTECHNIC
The Unit of Business and Data Processing
Kirkkokatu 10
95400 Tornio, Finland
Tel. +358 16 258 503, fax. +358 16 258 510
E-mail: info@tokem.fi
www.tokem.fi/amk/hakato/

Unit Director
Ms.Arja-Leena Jokinen
Tel. +358 16 258 50
E-mail: arja-leena.jokinen@tokem.fi

The Unit of Technical Education

Kemi Institute of Technology, the predecessor of the Unit of Technical Education, was established in the year 1960; now the unit has a staff of 60 persons and number of students is about 800. The Unit of Technical Education in Kemi prepares technological experts for both domestic and international assignments in the fields of Mechanical Engineering, Electrical Power Engineering, Automation, Product Development and Information Technology. The unit is situated in the Technology Village and surrounded by hi-tech companies with expertise in various fields of technology. The unit runs its own Business Incubator, where experts help technological innovators to start their own companies.

The unit has run Bachelor of Engineering degree programmes since the early 80s. Now it runs, in addition to the programmes given in Finnish, two international programmes: Cross-Border Engineering Education is a 4-year degree programme having more than 100 students and Gateway is a one-term programme run annually during the spring term. In both programmes the tuition is given completely in English.

The unit has well-equipped laboratories for all its specialisation areas: machine construction, electrical power engineering, automation, and information technology. The unit has over 200 PCs for its students. The computer classes are open outside the scheduled hours for the students to work with their assignments. All the PCs are connected to the Internet.

The unit has a library which provides a wide range of material for both study and leisure. Also a large choice of textbooks, magazines, and databases in English is available. For those interested in sports the unit offers a good gym for working out and plying basketball, for example. The student union also has several clubs which you are more than welcome to join.

Postal address:
KEMI-TORNIO POLYTECHNIC
The Unit of Technical Education
Kiveliönkatu 36,
FIN 94600 KEMI
E-mail: ketol@tokem.fi
http://www.ketol.tokem.fi

Unit Director:
Mr. Matti Uusimäki
Tel. +358 16 258 801
E-mail: matti.uusimaki@tokem.fi

The Unit of Health Care and Nursing

The organisation and the activities of the Unit of Health Care and Nursing are based on the non-hierarchical structure of administration and teamwork. The Unit has a Director, an Adult Education Director, four principal lecturers and 23 lecturers. Other staff consists of 13 professionals of different areas. Many experts outside the Unit are also needed so as to deliver the high-quality education. The different teams have been formed in order to develop functional wholes e.g. quality of the provided education, health care research, practical training, content and structure of curriculum, international affairs, marketing, adult education. The students have named their representatives as members in the teams. In addition to these teams there is The Unit Management Team led by the Unit Director and the principal lecturers as members.

The Unit of Health Care and Nursing educates nurses, health visitors and physiotherapists in daytime programmes. An important feature of the Unit´s activities is to provide educational programmes also for adults. Besides the evening degree programme the Unit provides continuing education, e.g. health and social care administration, for nurses, health visitors, midwives, physiotherapists and other health and social care professionals. Courses for professional updating and tailored programmes are available through the Unit. Open study courses are offered also to the general public.

The special support services and facilities consist of high-quality library, IT services, student advisor´s office, tutor students´ assistance, restaurant and leisure time activities. All staff is committed to providing a caring and supporting environment for every student. The Students´ Union of the Unit of Health Care and Nursing has an important role in the promotion of the education and welfare of the students. The Students´ Union representatives are always ready to help local as well as international students. Some flats with reasonable rent are available to international students.

The unit works closely with many external bodies and institutions, through which students have the opportunity to undertake study and practice placements in many European countries, Russia and China. In the near future cooperation will also begin with the United States.

The unit runs its own ”Health Station”, which offers those living in the Kemi-Tornio region many kinds of health care and rehabilitation services. Nursing and physiotherapy students can do a part of their clinical practice in this ”Health Station”.

Contact information:

Postal address:
Kemi-Tornio Polytechnic
Unit of Health Care and Nursing
Meripuistokatu 26, PL 506
FIN-94100 Kemi
E-mail: kthol@tokem.fi
http://www.tokem.fi/amk/kthol/

Unit Director
Ms. Riitta Käyhkö
Tel. +358 16 258 431, mobile phone +358 40 537 5815
E-mail: riitta.kayhko@tokem.fi

The Unit of Social Education and Social Care

The Unit of Social Education and Social Care offers 250 young people and adults such training as leads to a polytechnical degree as well as special studies such as drama and working instructor training. The chief person responsible for the social field is Unit Director Arja Honkakoski; the senior teacher and the adult education coordinator, together with a staff of fifteen permanent teachers and numerous experts from outside the school, are responsible for the training provided. Our working community maintains a warm, cosy and intimate, yet efficient, atmosphere.

The students have at their disposal their own library of the social field with its data acquisition systems, as well as the various learning centres of the Polytechnic in the Kemi and Tornio area. In their own library and in the learning centres, the students have access to the lending services, data services and computers for independent work and data acquisition.

The students in the social field participate actively in the development of their studying conditions. Tutor students do their part in acquainting new students with the studying routines and convey to them their own studying experience. The student association of the Unit of Social Education and Social Care has its important role in improving the studying conditions and general comfort and enjoyment.

Contact information:
Kemi-Tornio Polytechnic
The Unit of Social Education and Social Care
P.O.Box 504, FIN-94100 Kemi
Fax. +358 16 258 600
http://www.tokem.fi/amk/ksol/

Unit Director
Arja Honkakoski
Tel. +358 16 258 603
E-mail: arja.honkakoski@tokem.fi

The Unit of Cultural and Media Studies

The Unit of Cultural and Media Studies has about 300 students and some 40 teachers, a Unit Director and two secretaries. It also has its own local educational TV station, "Mean Vayla" (transl. "Our Channel"), and local radio station, "Radio Aktiivinen" ("Radio Active"). The programmes include interviews, music and entertainment, panel games and news on a regular basis.

The equipment reserved for different aspects of production and artistic expression in the unit are plentiful and modern, and include steadicams, photography studio and laboratories, lighting systems, theatre technology, TV studio, sound reproduction facilities and video equipment for both indoor and outdoor work, as well as different kinds of editing options. The unit also has a library and connections to other polytechnic and university library units.

The unit is also strongly active internationally (in the Northern, European and Eastern dimensions), supporting the students in their need for international work and cultural experience. Insitutes cooperating with the unit are ISC, St. Louis Business University (Belgium), University of Athens and CAID (Greece), University of Metz and 8th University of Paris (France), New University of Lisboa (Portugal), Moscow Film Institute VGIK (Russia), University of Luleå (Sweden), Hochschule Bremen (Germany), FH-Techno-Zentrum Salzburg (Austria) and Kodolanyi Janos Föiskola (Hungary).

The school has two restaurants and a cafeteria. Students´ flats are situated in dormitories near the school. Private flats are situated around the cities of Tornio (Finland) and Haparanda (Sweden).

Postal address
Kemi-Tornio Polytechnic
The Unit of Cultural and Media Studies
West Lapland Vocational Institute
Urheilukatu 6, 95400 Tornio, Finland
Tel. +358 16 451 100, fax +358 16 480 942
http://www.llaky.fi/kulttuuri/

Unit Director
Mr. Seppo Liljeström
Tel. +358 16 451 100, fax +358 16 480 942
E-mail: seppo.liljeström@llaky.fi

6. ACADEMIC INFORMATION

The academic calendar for 2000-2001

The academic year at the polytechnic consists of an autumn period and a spring semester. The autumn semester runs from August to mid-December, while the spring semester runs from January to May. The exact starting point depends on the education unit and programme. Each period consists of about a 7- to 8-week lecturing period which contains, besides lecturing, also other kinds of working methods. Examinations are usually given at the end of each period or semester for all the courses given during that time.

ACADEMIC CALENDAR 2000-2001	
Autumn semester 2000 (Periods 1 and 2)	Starting Date
Euro-Economics Education	28th August
Cross-Border Engineering	1th September
Information Systems Specialist Education	28th August
International Nursing Programme	mid-August
China as a Market Area	4th September
Spring semester 2001 (Periods 4 and 5)	mid-January to end o
Gateway	February 2001
A short break in autumn	
Christmas vacation is from 20th December to mid-January	
Winter holiday in March and Easter holiday (both about one week long)	

Application and registration procedures

The application procedures vary depending on whether the student is applying within an exchange programme such as Erasmus or an exchange agreement between his/her home institution and Kemi-Tornio Polytechnic. **ECTS/ERASMUS students fill in a special application form which includes a learning agreement.** The learning agreement is drawn up by ECTS/ERASMUS students and the institutions involved before the student goes abroad. The application form for Socrates/Erasmus Student Exchange Programme is attached at the end of the guide.

The education programmes have different application deadlines which should be taken into consideration. **ECTS/ERASMUS students, who will spend a limited time in the education institution abroad, must submit their applications for the autumn semester by 15th May and for the spring semester by 15th November. If a student intends to study the whole degree programme in Kemi-Tornio Polytechnic, s/he must follow the special application deadlines of individual education programmes. In this case a student must also use the special application forms of education programmes which can be obtained from the education units.** Some education fields arrange aptitude tests of their own. More detailed information on aptitude tests can be requested from the education units.

Erasmus students like all exchange students must sign up for their education programmes in the education unit as soon as possible after their arrival.

7. DEGREE PROGRAMMES

CROSS-BORDER ENGINEERING
Bachelor of Engineering

In the Cross-Border Engineering Education Programme the tuition is given completely in English. The students will specialise in digital electronics hardware design, digital signal processing, and embedded microprocessor design. The modular curriculum consists of e.g. digital electronics design, signal theory, mathematics, business & management, laboratory exercises, computing, science and physics, research and project work.

The duration of the studies is 4 years and the extent of credits 240 ECTS credits/160 credits. Several different kinds of teaching and learning methods are used, such as lectures, written exams, laboratory work, projects, reports, and seminars. The degree programme comprises the following main elements: Basic Studies 60 ECTS credits, Professional Studies 60 ECTS credits, Line-specific Professional Studies 45 ECTS credits, Elective Studies 30 ECTS credits and Bachelor's Thesis 15 ECTS credits. The CBE education also includes 12 months of training (measured to 30 ECTS credits) and the trainee post can be applied for either in Finland or abroad. The education is free of tuition fee.

The entrance qualifications are a leaving certificate from high school, technical vocational school or a college-level institution and a qualified entrance examination. The entrance examination consists of an aptitude test (including mathematics) and an English language test. Graduates of the Cross-Border Engineering Degree Programme are qualified to work on international assignments in the field of Electronics Engineering and Information Technology.

If you intend to study the whole degree programme in Kemi-Tornio Polytechnic you have to follow the application deadline of the degree programme which is as follows: outside Scandinavia March 31st 2000, and within Scandinavia June 30, 2000. The application forms can be obtained from the education unit or applications@tokem.fi

The Unit coordinator for ECTS:
Mr. Risto Mäkikyrö, Programme Manager
Tel. + 358 16 258 839, mobile phone: + 358 400 893 481
Fax. +358 16 258 875
E-mail: risto.makikyro@tokem.fi

International student exchange:
Ms. Ilona Savolainen
Tel. +358 16 258 848
E-mail: ilona.savolainen@tokem.fi

Note: all the information given here is preliminary and should be checked by the education unit.

		1st year		2nd year		3rd year		4
		credits/ECTS		credits/ECTS		credits/ECTS		cre
Code	Course	autumn	spring	autumn	spring	autumn	spring	autu
350P009	Trainee Seminar	1,5						
35010410	Basic Mathematics	3						
35010411	Linear Algebra	3						
350P001	Introduction to Project Work	3						
350P003	Introduction to Computer Engineering	3						
350P005	DC-Circuits with labs	3						
350P010	First Engineering Project	6						
350P004	Computer Engineering Project	6						
35010304	German 1		3					
35010412	Math Computer Tools		3					
35010511	Physics 1		3					
350P006	AC-Circuits with labs		3					
350P007	Analogue Electronics with Simulation		3					
350P008	Analogue Electronics Project		15					
	Independent courses 2nd year autumn			6				
	Elective Courses 2nd year autumn			3				
	Project courses 2nd year autumn			6				
	Project 2nd year autumn (Theme: Programming)			12				
	Independent courses 2nd year spring				6			
350102101	Swedish language				3			
	Elective Courses 2nd year spring				3			
	Project courses 2nd year spring				6			
	Project 2nd year spring (Theme: Digital Electronics)				12			
35001006	Microelectronics					3		
35001404	Operating Systems					3		
35008001	Signal Theory					3		
35001451	Controller Applications					3		
35001452	Controller Programming					3		
35001453	Controller Project					3		
35006412	Power Electronics					3		
35010801	Philosophy					3		
	Elective courses 3rd year autumn					3		
35008501	Computer Networks						3	
35008502	Telecomm. Basics						3	
35001014	Digital Design						3	
35001015	Digital Design Project						3	
35001016	Digital Electronics Labs.						3	
35010417	Discrete Time Signals						3	
35010418	Stat. & Coding Theory						3	
	Mobile Telecommunications						3	
	Telecomm. Labs						3	
	Elective courses 3rd year spring						3	
	FPGA design 1							
	FPGA design 2							
	Computer Achitectures							

Degree Programme in Information Technology - Cross-Border Engineering Education academic y

Course Title		*Extent of credits*

R&D   **3 ECTS credits (2 Finnish credits)**

Aims   The course is aimed at helping the students understand the basic principles of
research and development in engineering.

Content   Scientific knowledge and product development, the development process as an
investment, systematic product development process

Teaching   42 hours including lectures and a seminar

Assessment   One written exam

Literature   Will be announced later

Philosophy   **3 ECTS credits (2 credits)**

Aims   The course is primarily intended to help students acquire the thinking skills and
societal awareness necessary to become excellent engineers and vital contributing
members of society.

Content   The course is focused on the traditional substantive problems in philosophy. Lec
tures will be given on ancient, medieval, and modern philosophy, logic and
theory of argumentation. Special emphasis is placed on the question of ethics and
its application.

The ethics component deals with moral concepts and theories; basic concepts and
methods in ethics; ethics and professionalism in engineering; codes of ethics, or
ganisational loyalty and professional rights; environmental and professional re
sponsibilities in engineering, public safety, social control of sciences and technol
ogy. These issues will be developed through discussions of a variety of topics,
case studies, inquiries, and problem-solving exercises.

Teaching   42 hours of lectures

Assessment Will be based on the student's performance at exams, assignments, and class
participation

Literature   Library and web research, textbook: Ethics in Engineering 3rd edition
by Mike.W.Martin and Roland Schinzinger, ISBN 0-07-040849-1

Controller applications   **3 ECTS credits(2 credits)**

Aims   The objective of the course is to help students deepen their programming skills, especially in hardware-related and real time applications. At the end of the course student will be capable of designing and incorporating hard and software for controller applications.

Content   Developing software using IAR-tools, real time operating systems, input and output programming, real time applications, and controlling machines with the help of a microcontroller. This course also includes exercises and assignments.

Teaching   42 hours of lectures and tutorials

Assessment One written exam and assignments

Controller Programming   **3 ECTS credits (2 credits)**

Aims   The course will provide students with the knowledge required in the use of real-time software in hardware control. Applications are programmed using ANSI-C high-level language.

Content   IAR-environment, basic structure of controller software, implementing the state machine using software. This course also includes exercises in programming the applications.

Teaching   42 hours of lectures and tutorials

Assessment One written exam and assignments

Mathematics 3   **9 ECTS credits (6 credits)**

Course 5: Fourier analysis and probability
Content: Fourier series, Fourier transform, spectra, elements of probability.
Course 6: Applied mathematics and Statistics

Aims   The course is designed to teach the student how to apply mathematics in the theory of data communication systems, and use the Fourier analysis for exam ple, in signal processing.

Content   Statistics, probability distributions, elements of information and coding theory.

Assessment One written exam

Literature Text book: Engineering Mathematics. A Modern Foundation for Electronic, Electrical and Systems Engineers by A. Croft - R. Davison - M. Hargreaves, Addison-Wesley 1996 ISBN 0-201-87744-9

Power Electronics   **3 ECTS credits (2 credits)**

Aims   The course is intended to provide the student with the necessary skills in theo retical analysis of the fundamental switching power converters, and the applica tion of MathCad and Pspice in basic power electronics circuits.

Content   The switching matrix, voltage source, voltage law, current source, current law, existence (control) function, wanted and unwanted components, buck converter, boost converter, buck-boost converter, operation in different quadrants and basic power electronics components and their simulation.

Teaching   42 hours of lectures and tutorials.

Assessment   One written exam.

Literature   The text book: Switching power converters by Robert E. Wood, Krieger Publish ing Company, Inc., ISBN 0-89874-779-1.

C++ Programming   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Content   Students will examine the structure and function of Windows programs created using C++ and object oriented library. The course also involves modifying the programmes to meet given specifications.

Prerequisites Introduction to programming.

Teaching   42 hours of lectures, tutorials and supervised work in computer laboratory.

Assessment   One exam including literal and computer tasks.

Literature   Online manual of the compiler, materials from the Internet.

Programming project   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Content   Students will create real Windows programs using C++.

Prerequisites Windows programming.

Teaching   Supervision of the students' project work.

Assessment   Will be based on student's project reports.

Literature   Online manual of the compiler, materials from the Internet, C++ annotations.

Digital Design   **3 ECTS credits (2 credits)**

Aims   The course is aimed at deepening the student's knowledge and understanding in the fields of digital electronics and design.

Content   Altera design-tool, VHDL-design process, verification of the design using ModleSim-VHDL simulator, and use of FPLD-components. The course is closely linked with the digital design project.

Teaching   42 hours of lectures and tutorials.

Assessment One written exam and assessment reports.

Literature Altera manuals, VHDL Made Easy by David Pellerin and Douglas Taylor, Prentice-Hall Inc. 1997, Digital Systems Design and Prototyping Using Field Programmable Logic by Zoran Salcic and Asim Smailangic, Kluwer Academic Publisher, 1997. Further details on literature will be provided later.

Digital Design Project   **3 ECTS credits (2 credits)**

Aims   The overall goal of the course is to instruct the student in industrial design, and provide him/her with knowledge on the use of EDA-tools in digital product de sign. The student will work with a complete design project, from specification to testing. The course is based on the applications of FPLD components and the use of hardware description language (VHDL) in designs.

Teaching   Supervision of student's project work

Assessments Will be based on student project reports.

Labs in Digital Electronics   **3 ECTS credits (2 credits)**

Aims   To deepen the student's knowledge and understanding in the use of measure ment equipment and test designs. Experiments vary from year to year.

Teaching   42 hours of supervised lab experiments.

Assessment Will be based on written reports, and the students overall output, including at tendance, and individual progress in laboratory work.

Telecommunication Labs   **3 ECTS credits (2 credits)**

Aims   The student will get first hand training in telecommunication principles. Labora tory work includes introductory exercises in computer communications, modula tion processes, and modern telecommunications.

Teaching   42 hours of supervised lab experiments.

Assessment Will be based on written reports, and the student's overall output, including at tendance, and individual progress in laboratory work.

Basics in Telecommunication   **3 ECTS credits (2 credits)**

Aims   The student will be taught the basics of telecommunication systems including telephone, video, television, and radio. Special emphasis is placed on the relationship between signal theory and telecommunications systems.

Content   Principles of radio and television receivers, pulse carrier and pulse code modula tions, noise and error in signal transmission, basics of information theory, simulations and analysis of modulation and transmission systems using PSpice and MatCad or Matlab programmes.

Teaching   42 hours of lectures and tutorials.

Assessment One written exam and assignments.

Literature   Audio, Video and Data Telecommunications by David Petersen, McGraw-Hill.

Computer Networks   **3 ECTS credits (2 credits)**

Content   The basics of local area networks, internetwork components and the ISO layers of communications. Analyzing LAN-traffic.

Teaching   42 hours of lectures, tutorials and computer laboratory experiments.

Assessment One written exam and assignments.

Literature   Unix Network programming by Stevens, chapter 4.

Operating Systems   **3 ECTS credits (2 credis)**

Content   Principles of multitasking operating system, process management, memory management, and file management. Training with Linux -shells.

Teaching   42 hours of lectures, tutorials and computer laboratory experiments.

Assessment One written exam and assignments.

Literature   Unix for Programmers and Users by Graham Glass, chapters 1-4, 8 and 11.

Mobile Communication   **3 ECTS credits (2 credits)**

Aims   The course will introduce the student to understanding the basics of mobile telecommunication systems.

Content   GSM system, modules of GSM network, signalling and speech coding, network planning.

Teaching   42 hours of lectures and tutorials.

Assessment One written exam and possible assessment reports.

Literature Text book (to be announced later), library and web research.

Signal Theory   **3 ECTS credits (2 credits)**

Aims   The course is intended to provide the student with adequate knowledge in understanding the basic concepts of analogue signal processing, the importance of signal theory in information technology. The course is also aimed at providing the students with the fundamentals for pursuing post-graduate studies.

Content   Elements of signals and systems, responses and transfer functions of an LTI-system, modulation, noise, types of filters, the use of PC in signal theory.

Teaching   42 hours of lectures and tutorials.

Assessment One written exam.

Literature Text book (to be announced later), library and web research.

Sequential Circuits   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Aims   This course is primarily designed to teach the student how to analyse, simulate, design, and synthesise sequential circuits using state machine models, and sequential components like flip-flops, counters etc.

Content   Sequential circuit analysis, timing diagrams, state machine models, flip-flops, counters, shift registers, simulation of digital circuits using PSpice, other se quential components: memories, PALs, FPGAs.

Teaching   42 hours of lectures and tutorials.

Assessment One written exam.

Literature Digital Fundamentals, 6th ed. by Floyd, Merrill 1996, ISBN 0-02-338502-2, chapters 8 - 14.

Microprocessors   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Aims   This course is designed to teach the students the basics of microprocessors, as well as provide them with the knowledge on how to programme the hardware

Content   Basic architectures of processors, microcomputer as a hierarchical structure of levels, CPU, RAM, input and output, controllers, with emphasis on Intel 8051 family, development tools for controller programming

Teaching   42 hours of lectures and tutorials.

Assessment One written exam.

Literature   The 8051 Microcontroller by I. Scott MacKenzie, Prentice-Hall, ISBN 0-02-373660-7, info about the further literature will be provided later.

Digital Simulation Project   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Aims   The course seeks to provide the student with knowledge of how the practical design project of a digital electronics module is carried out from specification to verification with the help of simulation.

Content   Students work in groups of two. Individual descriptions are given to the groups, from which specifications are to be designed. After approving the specification, the supervisor will ask the respective groups to design the electronic unit and verify the design using simulation.

Teaching   Supervision of student's project work.

Assessment Will be based on student reports.

Literature   Digital Fundamentals, 6th ed. by Floyd, Merrill 1996, ISBN 0-02-338502-2, Component data books.

Mathematics 2   **9 ECTS credits (6 credits)**

Differential Equations
L- and Z-transforms
Spectral Anaysis

Content   Continuation of calculus, ordinary differential equations, Laplace-transform, z-transform, difference equations, basic concepts of Fourier series.

Aims   This course is designed to teach the student how to apply mathematical skills in solving advanced problems in electrical and control engineering. This course also provides the student with the basics for graduate studies.

Literature   Text book: Engineering Mathematics. A Modern Foundation for Electronic, Electrical, and Systems Engineers by A. Croft, R. Davison, and M. Hargreaves, Addison-Wesley 1996 ISBN 0-201-87744-9.

Assessment Written exams.

Physics 2

Aims   The course provides the students with advanced knowledge of physics in the area of waves, electric and magnetic fields, induction, geometrical and physical

optics. The topics in modern physics will cover areas like relativity, quantum theory, atomic physics, nuclear physics, nuclear energy, and particle physics.

Assessment One written exam.

Teaching 42 hours of lectures and tutorials.

Literature Fundamentals of Physics by Halliday, Resnic and Walker, John Wiley & Sons Inc.

Measurement Technology   3 ECTS credits (2 credits)

Aims The course is geared to provide the student with the basic understanding of how the measurement systems work, starting from classical instrumentation to mod ern computer based data acquisition systems. This includes applications where students get to measure specific physical quantities.

The instruction includes applied measurements as well as theory of measure ment technology. Part of the theory is explained by the teacher in the form of demonstrations and part of it is carried out by students in the form measure ments experiments.

Teaching 42 hours of lectures, tutorials and laboratory experiments.

Assessment One written exam, and assessments based partly on laboratory assignments.

Literature Principles of Measurement and Instrumentation by Alan S. Morris, Prentice-Hall.

German 2   3 ECTS credits (2 credits)

Aims The course aims at giving the student a deeper insight into the German lan guage and culture. At the end of the course the student should be able to con tinue their studies in German.

Content The student will put his/her knowledge and skills into practice by working with technology and economic-related texts in German. The instruction also includes discussions, written exercises and grammar.

Teaching   42 hours of lectures and tutorials.

Assessments Will be based on class participation, assignments, and exams.

Literature   Will be announced later.

Circuit Analysis   3 ECTS credits (2 credits)

Aims The course will teach the student how to analyse electric circuits under different circumstances; steady state and transient, and use computer in calculating the fundamental properties of suggested networks including time and frequency response.

Content	DC: Capacitors, permittivity, dielectric strength, RC-transients, charging, discharging, time constant, instantaneous values, equivalent circuits, current, capacitors in series and parallel, energy stored by a capacitor, inductors, permeability, induced voltage, RL-transients, storage phase, decay phase, time constant, instantaneous values, equivalent circuits, inductors in series and parallel, energy stored by an inductor.
	AC: Frequency response of basic elements, frequency response of series AC-circuits, absolute value and phase angle, frequency response of parallel AC-cir cuits, absolute value and phase angle, series resonance, resonant frequency, quality factor, selectivity, bandwidth, cutoff frequencies, parallel resonance, unity power factor, maximum impedance, selectivity, quality factor, filters, low-pass, high-pass, band pass, band-stop, and graph plotting.
Teaching	42 hours of lectures and tutorials.
Assessment	One written exam.
Literature	Textbook: Introductory Circuit Analysis by Robert L. Boylestad, Macmillan Publishing Company New York, ISBN 0-02-313161-6.

Analogue Simulation Project   **3 ECTS credits (2 credits)**
(will be included in the 1st year project)

Aims	The students will learn how to design a transistor amplifier as well as verify the design using PSpice-simulation.
Content	Students work in groups of two. An individual design task is given to each group, which involves designing the transistor amplifier to meet given specifications. After the design students will check the parameters using the simulation.
Teaching	Supervision of students' project work.
Assessments	Will be based on written reports.

Electronics Lab   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Aims	The contents of analogue and digital electronics courses are tied to the real world in the laboratory. Laboratory work will teach the students how to co-ordinate their theoretical knowledge in using electronic components and measuring equipment. Part of the course will include web and library research for report writing.
Content	Basic applications of transistors and operational amplifiers, designing and processing a printed circuit board, detecting faults in prototypes, construction of small digital electronics devices using TTL-components.

Teaching   42 hours of supervised laboratory experiments.

Assessment Will be based on written reports as well as the student's overall output including attendance and individual progress in laboratory work.

Physics Lab   **3 ECTS credits (2 credits)**

Aims   The course provides the student with advanced knowledge of physics through practical measurement experiments. This includes error estimation and general causes of measuring errors. The student will write reports on selected laboratory experiments.

Assessment Will be based on written reports and the student's overall output including attendance and individual progress in laboratory work.

Electric safety & First aid   **1.5 ECTS credits(2 credits)**

This First Aid Course which includes CPR is intended to provide the student with the necessary skills in helping the wounded or injured in the event of an accident.

The students are awarded certificates at the end of the first aid course.

Modular Programming   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Aims   The course is geared at providing the student with advanced knowledge of programming in high-level language.

Content   C-programming, creating multiple compilation unit projects, learning the use of structured data types.

Literature The Art and Science of C, by Roberts, part two and three.

Computer Technology   **3 ECTS credits (2 credits)**
(will be included in the 2nd year project)

Aims   The principal objective of the course is to provide the student with knowledge about the basic operational and structural features of the computer.

Content   Short history of computers, an overview of the computer hardware: processor, RAM, mass memory, monitors, principles of computer communication, peripheral devices.

Teaching   42 hours of lectures and tutorials.

Assessment One written exam.

Literature Will be announced later

Basics in Swedish   **3 ECTS credits (2 credits)**

Aims   The course will focus on preparing students for the Finnish civil service exams in Swedish. The language of instruction is Finnish.

Content   Grammar exercises, technology and business-related texts, discussions, presentations.

Teaching   42 hours of lectures and tutorials.

Assessment   Will be based on class participation, oral presentations, assignments, and exams.

Literature   Will be announced later.

Communication skills   **3 ECTS credits (2 credits)**
(will be included in the 1st year project)

Aims   The course will introduce students to the basic practical communication exercises in oral and written English.

Content   The course is a combination of lectures, discussions, and written exercises. The main areas of instruction will include formal and informal meetings, presentations, negotiating and socialising skills, report writing, summaries, job applications, business letters, texts on technology, and corporate communication skills.

Teaching   42 hours of lectures and tutorials.

Assessment   Will be based on class participation, assignments, and exams.

Literature   Will be announced later.

German   **3 ECTS credits (2 credits)**

Aims   This course is designed to introduce the students to the structure and vocabulary of the German language and have them work with technology related texts in German.

Content   Basic grammar and structure of the language, texts on technology and corporate communication, discussions, exercises, and assignments.

Teaching   42 hours of lectures and tutorials.

Assessment   Will be based on class participation, assignments, and exams.

Literature   Deutsch ist da! 1 by Pauli Kudel and Marketta Tikkanen, OTAVA

Analogue Electronics   **3 ECTS credits (2 credits)**
(will be included in the 1st year project)

Content will be announced later

Basic Digital Electronics	**3 ECTS credits (2 credits)**

(will be included in the 1ˢᵗ and 2ⁿᵈ year project)

Aims   Students will study the basics of combinatorial logic, Boolean algebra, digital electronics and prepare themselves for subsequent courses in digital electronics and computer sciences.

Content   Digital signals, analogue signals, binary, octal, and hexadecimal number sys tems, use of binary numbers in arithmetical calculations, Boolean algebra, cre ating and minimising combinatorial logic expressions, implementing combinato rial logic using gates, basic combinatorial logic applications: encoders, decoders, adders, and introduction to PAL-circuits.

Teaching 42 hours of lectures and tutorials.

Assessment One written exam.

Literature Textbook: Digital Fundamentals, 6ᵗʰ ed. by Floyd, Prentice-Hall 1997, ISBN 0-13-573479-9, chapters 1-7.

Mathematics 1	**9 ECTS credits (6credits)**

Aims   This module is aimed at enabling the student solve mathematical problems en countered in other disciplines, as well as incorporate the use of computers and mathematical theories in resolving problems.

Students will be divided into two groups based on their previous knowledge in mathematics. The more advanced group will have fewer lectures whereas the less advanced group will have more lectures and tutorials where many exercises are done. After the first test the groups are rearranged.

Basic Mathematics and Linear Algebra

Content   Vector algebra, matrix algebra, linear systems of equations, complex numbers

Math Computer Tools

Content: Elementary real functions, differential and integral calculus of one real variable real function, use of computers in understanding mathematical theories and solving problems**.**

Literature Textbook: Engineering Mathematics. A Modern Foundation for Electronic, Electrical and Systems Engineers by A. Croft, R. Davison, and M. Hargreaves, Addison-Wesley 1996 ISBN 0-201-87744-9.

Assessment Written exams

Physics 1 level gr a/b   **3 ECTS credits (2 credits)**

Aims   The primary objective is to instruct the students in the basics of physics and pro
                  vide them with the fundamentals needed for engineering studies.

Content   Linear and non-linear motion in dimensions 1, 2, and 3, Newton's laws, energy
                  and power, oscillations, pressure and kinetic gas theory, thermodynamics, the
                  Carnot cycle and entropy, basic theory of relativity.

                  Students will be divided into two groups based on their previous knowledge in
                  physics.The more advanced group will have lesser number of lectures, whereas
                  the less advanced group will have more lectures and tutorials where lots of exer
                  cises are done. After the first test the groups are rearranged
Teaching   36 or 56 hours of lectures, tutorials, and lab experiments

Assessment   Written exams

Literature   Fundamentals of Physics by Halliday, Resnic, and Walker, John Wiley & Sons
                  Inc.

                  General Economics   **3 ECTS credits (2 credits)**
                   (will be included in the 1st year project)

Aims   Students will study the basics of economics, the significance of economics re
                  lated information in engineering as well as the importance of entrepreneurship in
                  an economy.

Content   Markets and consumer behaviour, labour market, organisation of production,
                  ficial market, international trade, environmental issues, financial calculations,
                  entrepreneurship and entrepreneur, starting a business and running the firm.

Teaching   42 hours of lectures and tutorials.

Assessment   One written exam.

Literature   The Text book: Economics in a business context by Alan Neal and Colin
                  Haslan, Chapman & Hall, ISBN 0-412-37570-2 .

                  Electric Circuits with Lab (Lab portion)   **3 ECTS credits (2 credits)**

Aims   At the end of the course students will be able to interpret colour codes, create
                  electric netw orks, perform basic electrical measurements, work in an electrical
                  environment and in a team.

Content   DC: Resistors and the colour code, DMM, VOM, Ohm' s law, series resistance,
                  parallel resistance, parallel DC circuits, rheostats and potentiometers, series-
                  parallel DC circuits, superposition theorem (DC), Thevenin' s Theorem and
                  maximum power transfer.

AC: Oscilloscopes, RLC components, frequency response of R, L and C components, frequency response of series RL and RC network, using oscilloscope in phase measurements, series sinusoidal circuits, parallel   sinusoidal circuits, series-parallel sinusoidal circuits, Thevenin' s theorem and maximum power transfer.

Electronics: Semiconductor diode, zener-diode, transistor, semiconductor switch, semiconductor rectifier, semiconductor rectifier with capacitive filter, series regulator, basics of digital electronics using TTL-components.

Teaching   42 hours of supervised laboratory experiments.

Assessment Will be based the student's overall output including attendance and individual progress in laboratory work.

Use of PC   3 ECTS credits (2 credits)

Aims   The main objective of the course is to familiarise the student with how the use of computers can be incorporated into engineering studies. The course includes word processing exercises, spread sheets, calculations, and electronic mailing.

Content   Students determine the level at which they wish to begin, after which they will study the basic operation of the systems. They will be given an in-depth review of the MicroSoft Windows, Word, and Excel programs. Depending on the progress of the students, the course may also cover other applications such as the Internet, virus protection etc. The latter part of the course focuses on MathCad: Menus and palettes, variables, fonts, range variables, graphs, pictures, text regions, units, solving equations, symbolic calculations, and use of Help.

Teaching   42 hours of supervised work in computer laboratory.

Assessment Will be based upon students' reports and a written exam.

Literature   Program manuals.

Programming   3 ECTS credits (2 credits)
 (will be included in the 2nd year project)

Aims   The course is designed to instruct the student in computer programming using a structured language. The course provides the student with the basics upon which he or she may pursue further studies in computer programming in C-language.

Content   Basics of ANSI-C-language: programme structure, variables, expressions, pro gram control, functions. The programming is carried out using PC's and the Borland programming tools: editor, compiler, linker, and debugger. This incorporates the use of flow charts in describing algorithmic solutions, converting the flow charts to programmes, and the use of a symbolic debugger. A selection of exercises.

Literature   Textbook: The Art and Science of C - An Introduction to Computer Science by Eric S. Roberts, Addison Wesley Publishing Company, ISBN 0-201-54322-2.

DEGREE PROGRAMME IN EURO-ECONOMICS
NORDIC STUDIES IN EURO-ECONOMICS

Kemi-Tornio Polytechnic offers a degree programme in EURO-ECONOMICS. Its main aim is to provide students with skills required in international business.

Nordic Studies in Euro-Economics leads to a Bachelor's degree in Business Administration. The degree will take three and a half years to complete and consists of 210 ECTS credits, 140 Finnish credits. The academic year is divided into autumn and spring semesters, each consisting of study and exam periods. The language of instruction is English and the teaching will integrate lectures, seminars and workshops. Students are also offered an extensive programme of elective studies, as well as a five-month training period.

The studies are designed to focus on developing creativity and improving presentation skills - the skills which we regard as the most important requirements in working life today. Kemi-Tornio Polytechnic recognizes the importance of networking with industry and business as well as the other polytechnic units, and attempts to incorporate these aspects into the education programme as much as possible. Furthermore, the college provides an environment in which students can familiarise themselves with today's information technology.

An additional strength lies in the geographical proximity of the Russian and Swedish borders, and cooperation with our foreign partner institutions in those countries will play an important role in the implementation of the programme accordingly.

On completion of the programme, students
 · have acquired practical and theoretical skills to work in a business
   environment at home or abroad
 · are able to work independently as well as part of a team
 · have developed their communication and crosscultural skills
 · have developed competence in information technology and in more than
   one foreign language

The studies progress as follows: the first stage, consisting of basic studies, will provide students with a fundamental knowledge of the following subjects: Business Administration, Marketing, Presentation Skills, Accounting, Information Technology, Economics, Quantitative Methods, Logistics and Law. The use of networks will facilitate international and social contacts.
The second stage will give students an opportunity to deepen their knowledge of the subjects listed above. In addition, the students will obtain practical skills for a training period to be performed in an international business environment. During the third stage the students will be offered an extensive combination of theoretical lectures and professional studies in order to develop personal abilities required in performing bachelor's thesis.

International student exchange:
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Note: all information given here is preliminary and should be checked by the education unit.

		1st year		2nd year		3rd year		
		ECTS		ECTS		ECTS		
Code	Course	autumn	spring	autumn	spring	autumn	spring	au
	BASIC STUDIES							
281010	Business Administration	3,0						
281012	Marketing	4,5						
281014	Logistics		4,5					
281016	Financial Accounting	4,5						
281018	Management Accounting		4,5					
281020	Information Technology	4,5						
281022	Quantitative Methods		4,5					
281024	Law		4,5					
281026	Economics	4,5						
281028	Communication in Business	4,5						
281030	Presentation Skills	3,0						
281032	Team and Project Work		3,0					
281113	Professional Reading, Writing and Speaking			2,0	2,5			
281128	Negotiations							
	Language Studies		3,0					
	PROFESSIONAL STUDIES							
	Business Administration							
281100	Human Resource Management				3,0			
281101	Internationalization of companies			3,0				
281120	Strategic planning							
	Marketing							
281103	International Marketing				6,0			
281121	Foreign Trade						3,0	
	Logistics							
281104	Logistical Management and Strategies			3,0				
	Accounting							
281105	Taxation			3,0				
281122	International Accounting						3,0	
281123	Financial Analysis						3,0	
281106	Activity Based Costing				3,0			
	Financial Management							
281107	Financial Planning			3,0				
281124	Financial Management and International Finance						4,5	
	Information Technology							
281108	Advanced Use of Spreadsheets			3,0				
281109	Applications in Business Administration				3,0			
	Research Methods							
281110	Statistics			3,0				
281125	Qualitative Methods						3,0	
	Law							
281111	International and EC Law			3,0				
281112	Private International Law				3,0			
281126	Law of Obligations						3,0	
	Economics							
281127	International Economics						4,5	
	Language Studies							
	German/French/SpanishSwedish/Finnish/Russian			3,0	3,0			
	ELECTIVE STUDIES	1,5	6,0	4,0	6,5		6,0	
	PRACTICAL TRAINING					30,0		
	BACHELOR'S THESIS							1

PLEASE NOTE THAT DURING THE YEAR 2000-2001 FIRST YEAR'S STUDIES CANNOT BE CHOSEN.

Outline of Studies

The first year, consisting of basic studies, will provide students with a fundamental knowledge of the following subjects: Business Administration, Marketing, Logistics, Accounting, Information Technology, Quantitative Methods, Law, Economics, Communication in Busines, Presentation Skills and Team and Project Work.

The second year will give students an opportunity to deepen their knowledge of the subjects listed above. In addition, the students will obtain practical skills for a training period to be performed in an international business environment.

During the third year the students will be offered an extensive combination of theoretical lectures and professional studies in order to develop the personal abilities required in performing a bachelor's thesis.

1st year

281010	**Business Administration**	**3 ECTS credits (2 Finnish credits)**

Aims   To give students an idea that entrepreneurship is one of the basic factors in production and the foundation of social well-being as well as to motivate students to set up businesses of their own.

Content   The concept of an entrepreneur and entrepreneurship, the factors of production, the characteristics of an entrepreneur, the motives for setting up a business, business environment and social responsibility, the input and output of an organization, stakeholders of a company, types of business and merchandise, the forms of business ownership, phases of establishing a business.

Teaching   Lectures 48 hours and assignments 32 hours.

Assessment   Lecture and reading material test 60 %, assignments 40 %.

Literature   Whitley, Richard: European Business System, 1st ed.ISBN 0-8039-8732-3.
Yrityksen Tietokirjat Oy, Establishing a Business in Finland, 2nd ed.
Colin Barrow: The Essence of Small Business, Prentice Hall, 1993, ISBN 0-13-285362-0.

281012	**Marketing**	**4.5 ECTS credits (3 credits)**

Aims   To develop in the student a basic understanding of modern marketing.

Content   The concept of marketing: evolution of marketing concept, marketing in a modern firm.
The marketing environment: external and internal environment.
Buying behaviour: The dimensions of buyer behaviour, consumer behaviour, organisational buying behaviour.

Segmentation: Segmenting consumer markets, segmenting organisational markets, target marketing, positioning.
Marketing Mix Decisions: Product; concept, branding, product life cycle concept. Price; objectives, influencing factors, pricing policies and methods, Place; marketing channels, wholesaling, retailing and physical distribution, Promotion; promotional mix, advertising, personal selling, public relations and sales promotion.

Teaching   Lectures 48 hours and assignments 72 hours.

Assessment   One written paper 70 % and assignment 30 %.

Literature   Jobber David: Principles and Practice of Marketing, 1995.

281014   **Logistics**   **4.5 ECTS credits (3 credits)**

Aims   To provide students with general knowledge and an overall view of the relevant topics in the field of business logistics.

Content   Framework and scope of business logistics, achieving an integrated supply chain, purchasing process, ethical standards in purchasing.
Managing material flows, inventory control , ABC-analysis and other techniques using inventory for competitive advantage through supply chain management.
Purchase portfolio, vendor management, supply chain management and relationship management, purchasing partnerships.
Transport cost characteristics, transport mode selection; road, rail, sea, combined, air, pipelines.
Transport technology; routes, networks, documents, costs, organisations, laws, forwarding.
Electronic data interchange and the supply chain.
Identification of core business and outsourcing strategy.
Creating a competetive advantage through implementing logistics strategies.
Future trends in logistics.

Teaching   Lectures 48 hours and assignments 72 hours.

Assessment   Lecture and reading material test 70 %, assignments 30 %.
Assignments can be carried out individually or in a team.

281016   **Financial Accounting**   **4.5 ECTS credits (3 credits)**

Aims   To offer a financial perspective on business structures.
To enable students to present accounting information in such a way that the financial performance and position of an entity can be appraised and controlled.
To enable students to use information technology in accounting.
To introduce students to comparative accounting in an international context.

Content   Information system: the financial accounting as an information system. The identification of the users of financial information and their information

requirements. Double entry bookkeeping: concepts and principles of double entry bookkeeping. The trial balance and the preparation of the major financial accounting statements. Financial Statements: the major financial statements and their structure. Interpretation of financial statements: the use of ratios. Presentation of financial accounting data. Using information technology in accounting.

Teaching	Lectures 48 hours and assignments 72 hours.
Assessment	One written paper 60 % and assignment 40 %.
Literature	Bendrey, Hussey, West: Accounting and Finance in Business, 1996. Hussey, Hussey: Business Accounting, Macmillan Press, 1999.

281018	**Management Accounting**	**4.5 ECTS credits (3 credits)**

Aims	To provide an introduction to the theory and practice of managerial accounting primarily in the manufacturing environment with a view to providing information management for control and decision-making. To develop an understanding of organisational aspects in managerial accounting. To develop analytical skills related to the problem-solving roles of managerial accounting.
Content	Management of costs. Overhead cost management. Accounting for production systems (includes an introduction to activity-based costing). Cost-volume-profit analysis.
Teaching	Lectures 48 hours and assignments 72 hours.
Assessment	One written paper 40 % and assignment 60 %.
Literature	Bendrey, Hussey, West: Accounting and Finance in Business, 1996. Hussey, Hussey: Business Accounting, Macmillan Press, 1999.

281020	**Information Technology**	**4.5 ECTS credits (3 credits)**

Aims	To give students a basic understanding of computing concepts. To introduce students to some common business Information Technology. To introduce the basic concepts of computing. To enable the students to distinguish hardware and software. To be able to use operating systems (Windows 95 /Windows NT). To introduce students to the use of network services (Internet).

Content

	Lectures:	Laboratory:
Basics of computer hardware.	3	
Operating systems (Win 3.11 / Win95 /Win NT.)	18	5
Desktop tools	6	20
Word processing (Word).		
Spreadsheets (Excel).		
Network services (Internet)	12	6
· E-mail		
· WWW		
· Basics of HTML		
Library services.	6	4

Teaching   Lectures 64 hours and assignments 56 hours.

Assessment   Continous assessment and test in computing skills.

Literature   Support material: Hardware and software manuals. Additional material will be submitted during the sessions.

281022   **Quantitative Methods**   **4.5 ECTS credits (3 credits)**

Aims   To enable students to acquire the necessary skills to apply mathematical techniques in accounting and business problems.

Content   Algebra: Simplification of algebraic expressions; square and conjugate rules; polynomial division; solution of linear and quadratic equations; simultaneous linear equations; graphs of linear and qudratic functions; exponential and logrithmic functions; inequalities; graphical solution of equations and simultanious linear equations.

Financial Mathematics: Supply and demand, cost and revenue, break-even analysis; arithemetic and geometric series; applications in simple and compound interest, discounts, present values, annuities, amortisation.

Teaching   Lectures 60 hours and assignments 60 hours.

Assessment   One written paper, 3 hours 70 % and assignment 30 %.

281024   **Law**   **4.5 ECTS credits (3 credits)**

Aims   To give students a basic understanding of legal orders, legal systems and legal terms.
To provide students with an introduction to the law of contracts.
To provide students with an introduction to the company forms in Europe.

Content   Introduction to legal thinking: the significance of legal order, different kinds of legal systems.

Sources of law.
Legal terms.
Contracts.
Nature of business organisations: sole traders, partnerships, companies.

Teaching	Lectures 48 hours and assignments 72 hours.
Assessment	Lecture and reading material test 60 %, assignments 40 %.
Literature	Will be submitted during the sessions.

281026	**Economics**	**4.5 ECTS credits (3 credits)**

Aims	To provide the student with an understanding of principles, tools and techniques of economic analysis and to investigate the contribution of economic theory towards an understanding of business decision-making and performance.
Content	Microeconomics Basics:

The subject matter of economics: scarcity, choice, allocation, efficiency, comparative economic systems.
The market and price mechanism: elementary analysis of supply and demand, elasticity and substitution, the market and resource allocation.
Resource markets: an overview of resource markets, labour market and wage differentials, capital, land and entrepreneurial ability.

Macroeconomics Basics:
National income accounting: measures of output and income.
The Business Cycles.
Inflation.
Economic growth and development: what is economic growth and how are economic growth rates determined, productivity.
An introduction to the macroeconomic policy: fiscal policy; money and banking, monetary policy.

Teaching	Lectures 48 hours and assignments 72 hours.
Assessment	One written paper, 3 hours 70 % and assignments 30 %.
Literature	Whitehead: Economics Made Simple.
	Boyes, Melvin: Economics.
	Rycroft, Robert S.: The Essentials of Macroeconomics I and II.
	Parkin, Michael: Economics.

281028	**Communication in Business**	**4.5 ECTS credits (3 credits)**

Aims	To provide students with in-depth knowledge and skills in business communication practices to operate efficiently in various business contexts.
Content	Business Enterprises: writing, discussing and presenting company profiles

including the use of graphs and charts to explain trends.

Writing in Business: in the course of examining companies students will have the opportunity to learn and practice writing skills for communicating in business situations, such as report writing, memos, and agendas and minutes for meetings, business letters and fax and email messages.

Meetings: the language used in formal and informal meetings will be covered, and students will have an opportunity to practice both situations.

The students will have exercises in conducting meetings and have discussions related to companies which will be videotaped.

Teaching   Lectures 64 hours and assignments 56 hours.

Assessment   Coursework, in and out of class (in - active participation during the sessions; out of class - satisfactory completion of home assignments) 50 %; and examination 50 % (aural, oral and written).

Literature   Spring-Wallace: English for Corporate Communications. Prentice Hall Regents, 1993.
Support Material:
Powell: Business Matters. Language Teaching Publications, 1996.

281030   **Presentation Skills**   **3 ECTS credits (2 credits)**

Aims   To enable the students to express themselves in front of a group.
To emphasise the interaction between the presenter and the audience.
To make students aware of the nature of a presentation and how to handle material for a presentation.

Content   Presentations based on business-oriented material of students' own choice.
Class work includes exercises to improve students' presentation skills and response skills as a member of the audience.

Teaching   Lectures 32 hours and assignments 8 hours.

Assessment   Presentation 50 %; continuous assessment and performance as an audience member 50 %.

Literature   Submitted during the sessions.

281032   **Team and Project Work**   **3 ECTS credits (2 credits)**

Aims   To enable the students to be able to work in groups.
To give the students an opportunity to plan and carry out a project.

Content   Teamwork and Project Planning: the students will be oriented to teamwork and project planning by way of lectures in the beginning of the course. The lectures will be carried out by teachers who possess the necessary expertise in the areas needed in this project. There will be one teacher who will supervise and guide the class during the project. The supervising teacher will assess the students' work at various stages throughout the project. This assessment will include the students'

abilities to meet deadlines set for the various stages in their project as well as how the group works together and how each individual works as a memeber of the group. In addition, the final project will be evaluated by teachers in related courses and possibly participating companies.
Methods and Tools: during the lectures the students will be introduced to various research methods and the necessary tools for research.

Report Writing and Presentation Skills: the students will be introduced during the lectures to the skills needed to write a business report to be able to prepare a written business plan. At the completion of the project the students will be asked to orally present their work using skills acquired during the related course.

Self-evaluation and Supervision: the students will be required to keep a journal of their work which includes their own assessment of their work. The students should learn to be objective in evaluating their own work. The students will discuss their evaluations in groups and with the supervising teacher. From these sessions the students will learn to improve their work.

Teaching   Lectures 48 hours and assignments 32 hours.

Assessment   Continuous assessment 100 %.

Literature   Will be submitted during the sessions.

2nd year

281100	**Human Resource Management**	**3 ECTS credits (2 credits)**

Aims   To provide students with the knowledge that management, especially leadership abilities, is the force that holds everything in a business enterprise in motion to achieve desired material and immaterial results.

Content   Managerial roles, skills and abilities, managerial hierarchy, managerial functions, manager vs. leader, styles of leadership, situational leadership
Personnel management concept, staff planning, methods of job analysis, selection and orientation, training.

Teaching   Lectures 24 hours and assignments 56 hours.

Assessment   Lectures and reading material examination 70 %.
Self-supervised assignment 30 %.

Literature   Graham H.T., Bennet R.: Human Resource Management, 7th ed.
ISBN 0 7121 0844 0.
Viv Shackleton: Business Leadership 1995, ISBN 0-415-12678-9.
Support Material:
Pride et al.: Business, p. 136 - 196, ISBN 0- 395- 63340-0.

Bovée C. L., Thill J.V. et al.: Management. Mc. Graw-Hill, 1993.

281101 **Internationalization of Companies** **3 ECTS credits (2 credits)**

Aims   To provide students with knowledge of different ways of going global.

Content   Reasons for going international.
Roadblocks to going international.
International business transactions.
Sources of information.
Foreign trade organisations.

Teaching   Lectures 32 hours and assignments 48 hours.

Assessment   Examination 60 % and assignments 40 %.

Literature   Koslow: Business Abroad. Gulf Publishing Company, 1996.
Luostarinen-Welch: International Business Operations. Kyriiri Oy, 1993.

281103 **International Marketing** **6 ECTS credits (4 credits)**

Aims   To develop in the student an understanding of international marketing.

Content   Choosing the target market: international environment, choosing process.
Export plan: content.
International marketing mix: product, price, place and promotion.
Product decisions.
Trade fairs and exhibitions: Implementation of trade fairs or exhibition.

Teaching   Lectures and exercises 70 hours and assignments 90 hours.

Assessment   One written paper 40 % and assignments 60 %.

Literature   Jobber David: Principles and Practice of Marketing.
Terpstra - Sarahty: International Marketing.

281104 **Logistical Management and Strategies** **3 ECTS credits (2 credits)**

Aims   To give students an in-depth knowledge of the Integrated Supply Chain Process.

Content   Vendor management and purchasing strategies. Inventory management.
Transportation management. Logistics reengineering. Logistics environmental
assessment. Alternative logistics strategies. Time-based logistics. Warehouse
management and warehousing strategies. Logistics administration. Logistical
organizational development. Beyond structure: virtuality and transparency. Global
logistics. Future logistics challenges.

Teaching   Lectures and case discussions 48 hours and assignments 32 hours.

Assessment	Case reports and presentations, class participation, assignments 70 % and written exam 30%.
Literature	Bowersox Donald J., Closs David J.: Logistical Management. The Integrated Supply Chain Process, 1996. ISBN: 0-07-114070-0.

281105   **Taxation**   **3 ECTS credits (2 credits)**

Aims	To provide the student with an understanding of the Finnish taxation system and to give a view of taxation principles in another EU-country. To introduce to the principles of personal income and property taxation in Finland. To clarify the financial statements as the source of information for corporate taxation. To provide the relevant information concerning taxation of sole traders, partnerships and limited companies. To introduce the principles of V.A.T.
Content	Taxation: general introduction to taxation in Finland and in EU. Tax rates of income, property and consumption. Taxation of the Individual: taxation of earned income. Sources of income including benefits in kind. Personal allowances and reliefs. Taxation of income from capital. Corporate taxation: financial statements as the source of taxable income and property. Principles of taxation of partnerships and limited companies. Earned income and capital income. Taxes of different income. Value added taxation: principles and practices, V.A.T. in bookkeeping.
Teaching	Lectures 30 hours and assignments 50 hours.
Assessment	Lecture and reading material examination 60 %, assignments 40 %.
Literature	Hancock: Taxation - Policy and Practice. Nightingale: Taxation - Theory and Practice.

281106   **Activity-Based Costing (ABC)**   **3 ECTS credits (2 credits)**

Aims	To give students the ability to use activity-based costing as a costing method and as a tool in quality management. To learn how to design an ABC model. To understand how the results of ABC can be used in cost management. To familiarize students with the use of ABC applications. To understand the possibilities that ABC offers to quality management.
Content	Activity-based costing: origins, mechanics, discussion on results, activity-based product costs, cost management. ABC-applications: EasyABCQuick, CostControl. Quality management: the basic principles of quality assurance and control, quality costs and their roles in quality improvement.
Teaching	Lectures 40 hours and assignments 40 hours.
Assessment	Coursework (in and out of class) 30 %; written examination 40 % and assignment 30 %.

50   Euro-Economics

Literature	Cooper- Kaplan: Cost & Effect.	

281107	**Financial Planning**	**3 ECTS credits (2 credits)**

Aims   To provide students with skills in the budgeting process and the process of budgetary control.

Content   The purposes of budgets.
Stages in the planning process.
Functional and master budgets.
Flexible budgets and standard costs.
Computerised budgeting.
Budgetary control.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment   Lecture and reading material examination 50 %, assignments 50 %.

Literature   Bendrey-Hussey-West: Accounting and Finance in Business. DP Publications, 1996.
Drury: Management Accounting for Business Decisions. International Thomson Business Press, 1997.
Lucey: Costing. Ashford Colour Press, 1996.

281108	**Advanced use of spreadsheets**	**3 ECTS credits (2 credits)**

Aims   To deepen the knowledge and strengthen the skills to use spreadsheets effectively.

Content   Built in functions in spreadsheets.
Statistical tools.
Databases and database tools in spreadsheets.
Pivot table.
Solver application.
Creating macros.
Programming with macro/scripting language.

Teaching   Lessons 40 hours and assignments 40 hours.

Assessment   Assignment work.

Literature   Microsoft Excel 97. Developers handbook. Microsoft Press. (Optional)

281109	**Applications in Business Administration**	**3 ECTS credits (2 credits)**

Aims   To give students ability to use most common applications.

Content   Presentation programs and computer graphics.
Creating and using databases.
The use of integrated applications in office work.

Teaching   Lectures 40 hoursa and assignments 40 hours.

Assessment   Continuous assessment, test and assignment.

Literature   Will be submitted at the beginning of the lessons.

281110   **Statistics**   **3 ECTS credits (2 credits)**

Aims   To enable students to acquire the necessary skills to apply statistical techniques in accounting and business problems.

Content   Sources of information; sampling methods, mean, median; quartiles, standard deviation; graphs used in statistics; elementary probability theory; binomial, Poisson and normal distribution; sampling errors, confidence intervals, inference; scatter diagrams, correlation, least square regression, coefficient of determination, prediction; time series, trend, index; construct of interview sheet; statistical research project, writing a report.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment   One written paper, 3 hours 70 % and assignment 30 %.

281111   **International and European Community Law**   **3 ECTS credits (2 credits)**

Aims   To consider the evolution and development of the European.
Community and the main branches of European Community law.
To define the leading principles of international law and European Community law.

Content   Leading Principles of International Law.
The Historical Background to the European Community.
The Court of Justice and The Court of First Instance: organization, legal proceedings, preliminary rulings.
The Sources of Community Law.
General Principles of Law: proportionality, equality, legal certainty, procedural rights, subsidiarity, the supremacy of community law, the principles of direct applicability and direct effect.
Acts of the Institutions: regulations, directives, decisions.
Free Movement within the Single Market: customs duties and discriminatory internal taxation, quantitative restrictions and measures having equivalent effect, the free movement of workers, the right of establishment and the freedom to provide services, capital movements, competition law and policy.

Teaching   Lectures 40 hoursa and assignments 40 hours.

Assessment   Lectures and reading material examination 60 % and assignments 40 %.

Literature	Kent: Law of the European Union. Pitman Publishing, 1996.	

281112	**Private International Law**	**3 ECTS credits (2 credits)**
Aims	To give understanding of international contract law, of compensation for damages and of dissolving legal disputes.	

Content	International Contract Law: commercial agreements, contract of agency, distribution agreement, transport agreements, conventions concerning contracts. Compensation of Damages. Dissolving legal disputes: legal proceedings and courts, arbitration. Enforcement: conventions.

Teaching	Lectures 40 hoursa and assignments 40 hours.

Assessment	Lectures and reading material examination 60 % , assignments 40 %.

Literature	Will be submitted at the beginning of the lessons.

281113	**Professional Reading, Writing and Discussion Skills**	**3 ECTS credits(2 credits)**

Aims	To provide students with more specific oral and written communication skills.

Content	Reading, Writing and Discussions: the student will have a chance to read challenging business articles, and report on the content in writing. The articles will also be used as the base for business-oriented discussions. The focus is on learning to read large amounts of material rapidly and with understanding. Research Papers: The students will be introduced to writing research papers and documentation styles.

Teaching	Lectures 40 hours and assignments 40 hours.

Assessment	Coursework, in and out of class (in - active participation during the sessions; out of class - satisfactory completion of home assignments) 25 %; Reports 25 %; Scientific Writing Assignment 50 %.

Literature	To be submitted during the lessons.

3rd year

281120	**Strategic Planning**	**3 ECTS credits (2 credits)**

Aims	The students will learn the importance of planning in enterprises in order to deal with global and regional turbulence. They also learn the meaning of vision and long-term planning when you want to be successful in business.

Content	What is vision and strategy planning. Operational management and strategic management. The basic premises of strategic management. Strategic behaviour in a turbulent situation. Decision-making in a risky situation.

| Teaching | Lectures 32 hours and assignments 48 hours. |

| Assessment | Lectures and reading material examination 50 %, assignments 50 %. |

| Literature | Will be submitted at the beginning of the lectures. |

281121   Foreign Trade   3 ECTS credits (2 credits)

| Aims | To develop in the student a basic understanding of foreign trade procedures in a company. |

Content	Stages of export and import procedure.
	Trade contract: content and responsibitilies.
	International delivery terms: incoterms as a part of a trade contract.
	Documents: invoices, certificates of origin, ATA-carnet and transport documents.
	Customs procedure: using a customs declaration in different situations.

| Teaching | Lectures and exercises 32 hours, assignments 48 hours. |

| Assessment | One written paper 50 %, assignment 50 %. |

| Literature | Will be submitted at the beginning of lectures. |

281122   International Accounting   3 ECTS credits (2 credits)

| Aims | To introduce students to the problems of international accounting and reporting. |

| Content | International diversity in financial accounting and reporting practices in the main EU countries and in the US. |
| | EU harmonisation and EU directives, the International Accounting Standards (IAS) of The International Accounting Standards Committee (IASC) and the US Generally Accepted Accounting Principles (US.GAAP) of the Financial Accounting Standards Board (FASB). |

| Teaching | Lectures 30 hours and assignments 50 hours. |

| Assessment | Coursework, in and out of class 50% and examination 50%. |

Literature	Christopher Nobes and Robert Parker: Comparative international accounting. Prentice Hall, New York, 1995.
	Research papers, articles (to be given by the lecturer).
	Support material:
	Alexander, D.: Comparative International Accounting. Harcourt Brace, San Diego, 1996.
	Radebaugh, Lee H. and Gray, S.J., International Accounting and Multinational Enterprises, 4th ed. John Wiley, New York, 1997.
	Schweikart, Jim and Gray, S.J. and Roberts Clare: International Accounting: A Case Approach, McGraw-Hill, New York, 1995.

281123	**Financial Analysis**	**3 ECTS credits (2 credits)**

Aims To learn the interpretation of financial statements and how accounting data are used for analytical purposes.

Content Financial accounting analysis
Profitability, funds management, liquidity and solvency
Inter-firm comparison
Gearing ratios
Investment ratios
Performance measurement.

Teaching Lectures 32 hours and assignments 48 hours.

Assessment Coursework 50 % and examination 50 %.

Literature Kinserdal: Financial Accounting - An International Perspective, Pitman Publishing, 1995.
Bendrey-Hussey-West: Accounting and Finance in Business, DP Publications, 1996.

281124	**Financial Management and**	
	International Finance	**4.5 ECTS credits (3 credits)**

Aims To enable students to utilise financial data to assist management in performing the management functions and to survey the practical aspects of financing of internationaloperations.

Content Sources of finance and financial institutions.
Cost of capital and capital structure.
Capital budgeting.
Risk and capital asset pricing model.
Financial ratios.
Stock market investments.
The structures of financing from an EU point of view.

Teaching Lectures 56 hours and assignments 64 hours.

Assessment Two assignments á 25 %, examination 50 %.

Literature R.B.Brockington: Financial Management, DP Publications, London.
Financing, basic concepts. Painatuskeskus. Helsinki.
The Financial Times Guide to Using the Financial Pages. Pitman Publishing.
Laurence S. Ritter, William S. Silber: Principles of Money, Banking and Financial Markets.

281125   **Qualitative Methods**   **3 ECTS credits (2 credits)**

Aims   To familiarise students with qualitative research methods.
                 To provide students with skills necessary to perform case studies.

Content   The focus is on dealing with different bases for qualitative methods and analyses
                 as well as different tendencies in these fields. Group work is emphasised.
                 Preliminary assignment and concise exercises to be submitted.. The students will
                 be introduced to writing a coursework, the purpose of which is to deepen their
                 understanding of one concrete method of analysing.

Teaching   Lectures and workshops 30 hours, literature and coursework 50 hours.

Assessment   Reading material examination 50 %, lecture attendance and assignments
                 50 %.

Literature   Pentti Alasuutari: Qualitative method and Cultural Studies.
                 Robert K.Yin: Case Study Research, Design and Methods.
                 Support Material:
                 Mathew B. Miles, A. Michael Huberman: Quantitative Data Analysis.
                 Robert E. Stake: The Art of Case Study Research. Sage, 1995.

281126   **Law of Obligations**   **3 ECTS credits (2 credits)**

Aims   To give an introduction to the law of obligations.

Content   Methods of Providing Credit: debtor-creditor agreement, hire purchase, credit-
                 sale, credit cards, unjust enrichment, compensation for damages.
                 Credit Contracts: negotiation, formation, clauses, liabilities.
                 Securities: personal securities, real securities.
                 Collecting debts.
                 Bankruptcy: petition in bankruptcy, receivership and liquidation, bankruptcy
                 proceedings.
                 Arrangement of debts and debt restructuring: grounds for arrangement of debts,
                 proceedings, different ways of arranging debts.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment   Lectures and reading material examination 60 % , assignments 40 %.

Literature   Will be submitted at the beginning of the lectures.

281127   **International Economics**   **4.5 ECTS credits (3 credits)**

Aims   To give the student an understanding of living in a global economy.

Content   Theories of trade, commercial policy, exchange rate systems and practices, the
                 transitional economies.

Teaching   Lectures 40 hours, seminars 8 hours and assignments 72 hours.

Assessment   Lectures and reading material examination 50 %.
Oral presentation and written report 50 %.

Literature   Will be submitted at the beginning of lessons.

281128   **Negotiations**   **3 ECTS credits (2 credits)**

Aims   To give students the opportunity to learn and practise negotiation skills.

Content   Reading, writing, and discussions about articles concerning negotiation strategies and techniques, as well as intercultural differences/similarities in international negotiations. The students will then have the opportunity to practise these strategies and techniques in class. In particular, they will be asked to carry out a sales negotiation, which will be videotaped and then reviewed by the students and the teacher. The students will also read extracts from actual contracts and agreements, and they will be asked to comment on the language in them.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment   Classroom work 30 % and assignments 70%.

Literature   Will be submitted during the classes.

INFORMATION SYSTEMS SPECIALIST EDUCATION

Information Systems Specialist Education leads to a Bachelor of Business Administration (BBA) degree after studies of 3.5 years. The total extent of credits is 210 ECTS credits/140 credits. The degree programme consists of the following main elements: Basic Studies (60 ECTS credits), Professional Studies (75 ECTS credits), Elective Studies (30 ECTS credits), Practical Training (30 ECTS credits) and Bachelor's Thesis (15 ECTS credits).

Information Systems Specialist Education starts with one year of basic studies. A student with previous studies in information technology and business can start the studies directly from the beginning of the second academic year. It is possible to complete the studies to a master degree at a university with additional 60 – 80 credits after the degree in Kemi-Tornio Polytechnic. All the studies will be carried out in English. The teaching methods are lectures, seminars, groupwork, exercises, independent work and assignments. Modern information technology is available for the students. The practical training can be accomplished either in Finland or abroad.

On completion of the programme the graduate
· Is capable of designing, implementing, updating and developing information systems
· Knows the application possibilities, limitations and programme development in data processing
· Knows how to purchase a computer system and make agreements concerning it
· Is capable of handling databases

The studies have been designed to give Data Processing Designers, Application Programmers, System Analysts and Data Processing Managers theoretical and practical expertise in their professions. The programme consists of courses in administrative information technology, mathematical-technical information technology, business studies and mathematics. Through these studies the students will achieve expertise in data processing as well as the problems with and potential of information technology.

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Note: all the information given here is preliminary and should be checked by the education unit.

	Information Systems Specialist Education							
		1st year		2nd year		3rd year		
		ECTS		ECTS		ECTS		
		autumn	spring	autumn	spring	autumn	spring	aut
	BASIC STUDIES							
291000	Information Technology	4,5						
291040	Programming Techniques and C-programming		3,0					
291160	Application Programmes	7,5						
291161	Computer Products			3,0				
291280	Computer Hardware and Software		3,0					
291321	System Analysis and Design		4,5					
291322	Information System Technical Planning						3,0	
291361	Orientation Studies	3,0						
291400	Project and Teamwork		3,0					
293402	Financial Accounting		4,5					
291401	Entrepreneurship		3,0					
291440	Marketing	4,5						
291362	Law I		3,0					
291360	Economics		3,0					
291487	Swedish for Finnish students I	3,0						
291486	Finnish for Foreigners I	3,0						
291484	English for International Business			3,0				
291484	Professional Reading, Writing and Discussions in English	3,0						
	PROFESSIONAL STUDIES							
293042	Visual Basic Programming		3,0					
292041	C-programming			4,5				
292120	Databases/SQL			7,5				
293001	Operating systems I		4,5					
293240	Data Communication			3,0				
292323	System Construction				4,5			
292326	Systen Analysis and Design Project				3,0			
293324	Object-oriented System Construction				3,0			
293493	Programming Project				3,0			
293121	Database Programming (Delphi)				3,0			
293200	Windows programming/C++						4,5	
292325	Human - Computer Interaction						3,0	
293080	Data Network Construction						3,0	
292241	Data Network Operating Systems						4,5	
292403	Management Accounting			4,5				
293320	Mathematics and Statistics				4,5			
293404	Law II				3,0			
292404	Leadership and Personnel Management				3,0			
295521	Scientific Writing						4,5	
295522	Research Studies						3,0	
295520	**BACHELOR'S THESIS**							1
	PRACTICAL TRAINING					30,0		
	ELECTIVE STUDIES							
293043	WWW Programming				3,0			
294044	Cobol Programming				3,0			
294045	C++ Programming I				3,0			
294046	C++ Programming II				3,0			
294047	Multimedia Programming I				3,0			
294048	Multimedia Programming II				3,0			
294049	Visual Basic Programming II				3,0			
294050	Image Editing			3,0				
294051	Sound Editing			3,0				
294052	Hypertext Documents			3,0				
294053	Java Programming				3,0			
294410	Internet Marketing				3,0			
294409	Electronic Business				3,0			
294054	Project Administration Tools				3,0			
294407	Business Administration						3,0	
294408	Law III (Business Law)			3,0				

PLEASE NOTE THAT DURING THE YEAR 2000-2001 FIRST YEAR'S STUDIES CANNOT BE CHOSEN.

BASIC STUDIES   **60 ECTS CREDITS (40 credits)**

291000   **Information Technology**   **4.5 ECTS credits (3 Finnish credits)**

Aims   To give a basic understanding of computing concepts and to introduce common business information technology.

Content   Computer hardware and software, operating systems, using computers and operating system, data communications, Internet, e-mail, network services, building one's own home pages.

Teaching   Lectures 50 % and exercises 50 %.

Assessment   Lectures and test 70% and assignments 30%.

Literature   Will be submitted during the lessons.

291040   **Programming Techniques and C-programming**   **3 ECTS credits (2 credits)**

Aims   To learn the basic idea of programming. How to design and build programs by using C-language.

Content   Program structure, programming methods, the bases of C-language; libraries, variables, input/output functions, decisions, loops. Turbo C++ programming environment, compiling and linking.

Teaching   Lectures 50 % and exercises 50 %.

Assessment   Test 70% and assignments 30%.

Literature   Lafore, Robert: TWG C-programming Using Turbo C++. SAMS, 1994.

291160   **Application Programmes**   **7.5 ECTS credits (5 credits)**

Aims   The aim of the course is that students achieve an extensive and comprehensive knowledge of the most common application programmes and are able to use them in studies and work.

Content   Word processing (MS-Word), Spreadsheets (MS-Excel), Databases (MS-Access), Presentation tools (MS-PowerPoint), Graphics (CorelDraw).

Teaching   Contact hours 112, exercises and assignments 88 hours.

Assessment   Test 50 % and assignments 50 %.

Literature   Will be submitted during the lessons.

291161   **Computer Products**   **3 ECTS credits (2 credits)**

Aims   The course will introduce the students to the latest software and hardware for personal computers on the market. It will also show a wide range of applications for different fields on the market.

Content   Comparison of different type computers and operating systems.
General view of hardware and software on the market.

Teaching   Contact hours 42 hours and assignments 38 hours.

Assessment Test

Literature   Will be submitted during the sessions.

291280   **Computer Hardware and Software**   **3 ECTS credits (2 credits)**

Aims   To familiarise the students with the latest software and hardware for personal computers on the market. And make the student aware of their properties and use in the real world.

Content   Latest product selections (catalogues).
Latest product development.
Look at total solutions for PCs.

Teaching   Contact hours 42 and assignments 38 hours.
Student makes a comparison between equivalent products and presents the results on a seminar.

Assessment Test.

Literature   Will be submitted during the sessions.

291321   **System Analysis and Design**   **4.5 ECTS credits (3 credits)**

Aims   To give an overview of the system design process, approaches within system design and to use the most common description methods and techniques .

Content   Developing information systems; starting points, requirements, models, methods, tools, instructions, construction stages and main features .

Teaching   Lectures 60 % and exercises 40 %.

Assessment Test 40%.
Self-supervised work 30%.
Active participation 30%.

Literature   Will be submitted during the lessons.

291322   **Information System Technical Planning**   **3 ECTS credits (2 credits)**

Aims   A student can plan and implement the technical solutions. A student is able to fit the system to different kinds of software and hardware environments.

Content   Testing, security, documentation.

Teaching   Lectures 40 % and exercises 60 %.

Assessment   Test 30%.
                 Self-supervised work 40%.
                 Active participation 30%.

Literature   Will be submitted during the lessons.

291361   **Orientation Studies**   **3 ECTS credits (2 credits)**

Aims   To give an idea of the structure of the Information System Specialist education, the goals, the outlines and the prospective professions. Introduction to effective studies carried out in English and planning of study strategies. To get familiar with the information sources Kemi-Tornio Polytechnic offers.

Content   Study environment.
                 Study programmes.
                 Organising the studies.
                 Library services.
                 Information services.
                 Databases.

Teaching   Contact hours 28 hours and assignments.

Assessment   Attendance.

Literature   Study guide.

291400   **Project and Teamwork**   **3 ECTS credits (2 credits)**

Aims   To improve the student's ability to work in groups, teams and projects.
                 To give the students an opportunity to plan and carry out a project.

Content   Project planning.
                 Project administration.
                 Leading a project.
                 Working in a team.
                 An individual in teams.
                 Reporting and presentation of project planning and results.
                 Evaluation.

Teaching   Contact hours 42 hours, assignments 38 hours.

Assessment	Assignment 80 %, a project work and journal; active participation in classroom work 20 %.

Literature	Will be submitted during the lessons.

293402 Financial Accounting   4.5 ECTS credits (3 credits)

Aims	To offer a financial perspective on business structures. To enable students to present accounting information in such a way that the financial performance and position of an entity can be appraised and controlled. To enable students to use information technology in accounting. To introduce students to comparative accounting in an international context.

Content	Information system: the financial accounting as an information system. The identification of the users of financial information and their information requirements. Double-entry bookkeeping: concepts and principles of double-entry bookkeeping. The trial balance and the preparation of the major financial accounting statements. Financial statements: the major financial statements and their structure. Interpretation of financial statements and the use of ratios. Using information technology in accounting.

Teaching	Lectures and exercises 42 hours and assignments 78 hours.

Assessment	Assignments 50 % and examination 50 %.

Literature	Bendrey, Hussey, West: Accounting and Finance in Business. Hussey, Hussey: Business Accounting, Macmillan, Press 1999.

291401 Entrepreneurship   3 ECTS credits (2 credits)

Aims	To get general overview of the business operating process, entrepreneurship and success factors relating to business. Emphasises the importance of interaction between the company and its environment.

Content	Concept of entrepreneurship. Characteristics of an entrepreneur. Motives for establishing a business firm. Interest groups of the company. Internal and external integration. Forms of business ownership. Phases on setting up a firm and organising a business operation.

Teaching	Lectures 28 hours and assignments 52 hours.

Assessment	Lecture and reading material test 70 % and assignment 30 %.

Literature	Colin Barrow: The Essence of Small Business. Prentice Hall. Pride-Hughes-Kapoor: Business, pp 2-104, 668-756. Yrityksen Tietokirjat Oy: Establishing a Business in Finland.

291440   **Marketing**   **4.5 ECTS credits (3 credits)**

Aims   To give students a basic understanding of modern marketing.
To provide students with current knowledge in the application of marketing.

Content   **The concept of marketing.**
The marketing environment: external and internal environment.
Buying behaviour: the dimensions of consumer behaviour, characteristics of organisational buying behaviour.
Segmentation: segmenting consumer markets and organisational markets, target marketing, positioning.
Marketing Mix Decisions: product; concept, branding, product life cycle, product development.
Price; objectives, influencing factors, pricing policies and methods.
Distribution; marketing channels, wholesaling and retailing.
Promotion; advertising, personal selling, public relations and sales promotion.

Teaching   Lectures 63 hours and assignments 57 hours.

Assessment   One written paper 60 % and assignments 40 %.

Literature   Jobber David: Principles and Practice of Marketing. 1998.

291362   **Law I (Introduction to legal thinking)**   **3 ECTS credits (2 credits)**

Aims   To give students a basic understanding of legal orders, legal systems and legal terms. To provide the students with an introduction to the law of contracts and to develop the ability to make contracts.

Content   Introduction to the legal thinking:
- significance of legal order.
- different kinds of legal systems.

Sources of law.
Legal terms.
Contracts.

Teaching   Lectures 42 hours, assignments 38 hours.

Assessment   Lecture and reading material test 60 %.
Preparation work and assignments 40 %.

Literature   Submitted during the sessions.

291360   **Economics**   **3 ECTS (2 credits)**

Aims   To provide the student with an understanding of the principles, tools and techniques of economic analysis and to investigate the contribution of economic theory towards an understanding of business decision making and performance.

To identify the economic aspects of the behaviour of business, households and government.

To evaluate the determinants of price and non-price decisions in different market environments.

To evaluate the influence of macroeconomics variables on the firm's performance.

Content   The subject matter of economics: scarcity, choice, allocation, efficiency, comparative economic systems.
The market and price mechanism.
Resource markets.
National income accounting.
The business cycles.
Inflation.
Economic growth and development.
An introduction to the foreign exchange market.
An introduction to macroeconomic policy.

Teaching   Lectures 28 hours and assignments 52 hours.

Assessment One written paper, 3 hours (70 %) and assignments 30 %.

Literature   Whitehead, G: Economics (Made Simple).

291487   **Swedish for Finnish students I**   **3 ECTS credits (2 credits)**

Aims   To develop communication skills in Swedish, written and oral, in basic situations of everyday life and work.

Content   Everyday communication.
Studies.
Applying for job.
Phrases in social situations.
Spare time: hobbies, travelling, shopping, eating out etc.
Working communication.
Introducing a company.
Customer service.
Demonstrating a product.
Visiting a company.
Phoning at work.

Teaching   Lectures 42 hours and assignments 38 hours.

Assessment Written test.
Oral presentations.
Active participation in class.

Literature   Medspelare i affärer (WSOY).
Affärer med svenskar (FINTRA).
Bättre affärskommunikation (FINTRA).

291486   **Finnish for Foreigners   I**   **3 ECTS credits (2 credits)**

Aims   For students who have not been studying Finnish before.
                  To enable students to act in everyday situations during their studies.
                  To increase communication.

Content   Everyday situations: visiting offices, shops, working with other students, Finnish
                  family, manners.
                  Basics in grammar.

Teaching   Contact lectures 60 hours and assignments 20 hours.

Assessment Assignments 100 % and 80 % attendance.

Literature   Will be submitted during the lessons.

291484   **English for International Business**   **3 ECTS credits (2 credits)**

Aims   To provide students with knowledge and skills in business communication practices
                  to operate efficiently in various business situations by using modern information
                  technology to convey messages. Special focuses will be on presentations, meetings
                  and negotiations in an international business context.

Content   Aural, oral and written business communication.
                  Formal and informal meetings, procedure, language and documents.
                  Process of negotiation, strategy, tactics, memos and reports.
                  Intercultural aspects of negotiation.
                  Planning, carrying out, and assessing a meeting and sales negotiation with relevant
                  documents.

Teaching   Contact hours 75 %, preparation work and assignments 25 %.

Assessment 80 % attendance required, active participation in classroom work; thorough
                  preparation and successful completetion of assignments on time.

Literature   Submitted by the instructor during sessions.

291485   **Professional Reading, Writing and**
                  Discussions in English   **3 ECTS credits (2 credits)**

Aims   To improve students' ability to read material written for their field of specialisation,
                  such as articles from manuals, handbooks, professional journals, reports etc., and
                  to give students the opportunity to discuss such material. To introduce students to
                  the skills needed for writing professional documents in their area of specialisation.

Content   Reading assignments.
                  Discussion of articles.
                  Lectures on professional writing skills.
                  Writing assignments.

Teaching   Contact hours 75 %, preparation work and assignments 25 %.

Assessment 80 % attendance required, preparation and comprehension of reading assignments; successful completion of writing assignments on time ; active participation in class.

Literature Submitted by the instructor during sessions; students' own choice of articles.

PROFESSIONAL STUDIES   **75 ECTS CREDITS (50 credits)**

293042   **Visual Basic Programming**   **3 ECTS credits (2 credits)**

Aims   The aim of this course is to make a student acquainted with visual programming tools, how to construct a standardised user interface, programming language and technique.

Content   Layout design, visual objects, methods, properties, events, visual programming.

Teaching   Lectures 50% and exercises 50%.

Assessment Test 50% and project work 50%.

Literature Halvorson Michael: Microsoft Visual Basic 6.0 Professional (Step by Step) Paperback - 656 pages Bk&Cd Rom edition (August 1998). Microsoft Press; ISBN: 1572318090.
Reference literature:
Visual Basic 6 Complete, Sybex (Ed.), paperback edition, 1008 pages (March 1999). ISBN: 0782124690.

292041   **C-programming**   **4.5 ECTS credits (3 credits)**

Aims   The aim of this course is to develop the student's ability to create C programs and master the most basic elements and concepts in programming.

Content   Variables, data types, program flow control, functions, modular programming, arrays, strings, standard libraries, recursion, iteration, files, bit-operators, pointers.

Teaching   Lectures 40%, exercises 30% and project work 30%.

Assessment Test 50% and project work 50%.

Literature Lafore Robert: C Programming Using Turbo C++. Sams Publishing, ISBN 0-672-30399-X.
Reference literature: Kernighan Brian W. & Dennis M.: The C Programming Language. Ritchie Prentice Hall. ISBN: 0131103628.

292120   **Databases/SQL**   **7.5 ECTS credits (5 credits)**

Aims   The aim of this course is to import knowledge about the importance of databases in IT and creating of relational databases and structure design.

Content   Database management system, data modelling, database design, SQL query language, embedded SQL, database implementing.

Teaching   Lectures 40%, exercises 30% and project work 30%.

Assessment   Test 50% and project work 50%.

Literature   The Essence of SQL : A Guide to Learning Most of SQL in the Least Amount of Time by David Rozenshtein, Tom Bondur (Editor) , Peer to Peer Communications; ISBN: 0964981211.
Reference literature:
Date, C.J.: An Introduction to Databasesystem. Addison-Wesley Publishing Company, 1986.
Elmastri, R., Navathe, S.B.: Fundamentals of Databasesystems, 2nd ed. Addison-Wesley Publishing Company.

293001   Operating Systems   4.5 ECTS credits (3 credits)

Aims   The course will teach knowledge of different types of operating systems, their architecture and function. Students learn how to install and use different network operating systems.

Content   Fundamentals of the most common operating systems: file system, disk operations, memory management.
Multi-user systems: user-rights, processes, data security.
Networking: user interface, protocols, user rights, user profiles, administration of shared resources, security.

Teaching   Lectures 63 hours and assignments 57 hours.

Assessment   Test.

Literature   Will be submitted during the sessions.

293240   Data Communication   3 ECTS credits (2 credits)

Aims   The course will teach the fundamentals of data communications. Students learn different ways to communicate from one PC to other PCs. The aim is to familiarise students with the Internet and its possibilities.

Content   Fundamentals of data communication in PC environment.
Different alternatives for communications in PC environment.
Networking with PCs.
The Internet and its possibilities.
Solutions in the Internet.

Teaching   Lectures and exercises 42 hours.
(Exercises: Install modems, direct cable connections and Internet connections. Install PCs into a local area network in MS Windows workgroup environment.)
Assignments 38 hours.

Assessment Test.

Literature Will be submitted during the lessons.

292323   **System Construction**   **4.5 ECTS credits (3 credits)**

Aims   To give an overview of models, methods, tools, to use tools to build a system.

Content   Data-oriented design and function-oriented design.

Teaching   Lectures 60 % and exercises 40 %.

Assessment Test 40%.
               Self-supervised work 30%.
               Active participation 30%.

Literature Will be submitted during the lessons.

292326   **System Analysis and Design Project**   **3 ECTS credits (2 credits)**

Aims   To enable the students to practise the theoretical studies in a system analysis and
               design project.

Content   To carry out a system analysis and design project in practise based on the theoretical
               studies.

Teaching   Introduction, guidance and lectures 35 hours, assignment 45 hours.

Assessment Assignment 100 %.

Literature Will be submitted during the lessons.

293324   **Object-oriented System Construction**   **3 ECTS credits (2 credits)**

Aims   To introduce the student to object-oriented analysis, design and theory of
               programming, basic concepts and design methods.

Content   OOA,OOD,OOP.

Teaching   Lecture 24 hours, assignments 24 hours and literature 32 hours.

Assessment Lecture 20%.
               Self-supervised work 30%.
               Test 50%.

Literature Jacobson: Object-oriented Software Engineering.
               Pressman: Software Engineering- a Practitioner's Approach.

293493   **Programming Project**   **3 ECTS credits (2 credits)**

Aims   To design and build a program as a project.

Content   Design and build a program by using methods studied in the previous courses.
Design and write required documentation.

Teaching   Lectures 50 % and assignment 50 %.

Assessment Self-supervised work 100%.

Literature   Lafore, Robert; TWG C-programming Using Turbo C++. SAMS, 1994.

293121   **Database Programming (Delphi)**   **3 ECTS credits (2 credits)**

Aims   The aim of this course is to give knowledge on how to model and create a database,
record, modify, apply data and manage strategies for a multi-user environment in
a network environment.

Content   Relational and object model, client server, referential integrity, database
performance, database optimising, Delphi programming.

Teaching   Lectures 50% and exercises 50%.

Assessment Project work 100%.

Literature   Charlie Calvert's Delphi 4 Unleashed (Unleashed), Charlie Calvert Paperback -
1152 pages Bk&CD-ROM edition (November 1998), Sams. ISBN: 0672312859.

293200   **Windows programming/C++**   **4.5 ECTS credits (3 credits)**

Aims   To design and build Windows programs by using C++-language. To understand
the structure of object-oriented programming.

Content   Programming environment, tools, objects, properties, designing and building the
userinterface, program structure, methods.

Teaching   Lectures 50 % and exercises 50 %.

Assessment Self-supervised work 100%.

Literature   Reisdorph, Kent: Teach Yourself Borland C++-Builder in 21 days. SAMS, 1998

292325   **Human – Computer Interaction**   **3 ECTS credits (2 credits)**

Aims   To learn how to build a user interface.

Content   Developing a user interface, requirements, principles, tools.

Teaching   Lectures 60 % and exercises 40 %.

Assessment Test 40%.
Self-supervised work 30%.
Active participation 30%.

Literature Preece, J., Rogers.Y & Skarp.H, et al.: Human- Computer Interaction, Addison-Wesley, 1994.

293080 **Data Network Construction** **3 ECTS credits (2 credits)**

Aims To teach the students to plan and build a PC network. Also to teach how to test and dimension networks according to customers' needs.

Content Network topologies.
Network planning.
Installation and dimensioning networks.
Supporting networks and security.

Teaching Contact hours 42 hours, assignments 38 hours.

Assessment Test.

Literature Will be submitted during the lessons.

292241 **Data Network Operating Systems** **4.5 ECTS credits (3 credits)**

Aims The students learn how to install and use different network operating systems.

Content Windows NT.
Linux, Unix.
System managers tasks.
Data operators tasks.
Data security.

Teaching Exercise: the students install different operating systems and practice the system manager's tasks in that environment according to the teacher's instructions.
Lectures 63 hours, assessments 57 hours.

Assessment Test.

Literature Will be submitted during the lessons.

292403 **Management Accounting** **4.5 ECTS credits (3 credits)**

Aims To provide an introduction to the theory of managerial accounting with the view to provide information to management for control and decision-making.
To develop analytical skills in the problem-solving roles of managerial accounting.
To provide students with basic skills in the budgeting process and the process of budgetary control.

Content	Management of costs.
	Overhead cost management.
	Accounting for production systems (includes an introduction to activity-based costing ABC).
	Cost-volume-profit analysis.
	Budgeting and budgetary control.
	Using information technology in ABC and budgeting.

Teaching Lectures and exercises 48 hours, assignments 72 hours.

Assessment Assignments 50 % and examination 50 %.

Literature Bendrey, Hussey, West: Accounting and Finance in Business.
Hussey, Hussey: Business Accounting. Macmillan Press, 1999.

293320 **Mathematics and Statistics** **4.5 ECTS credits (3 credits)**

Aims To provide the students with understanding of mathematical terminology and methods for problem solving, data analysis and decision making with the help of mathematical models.
To enable the students to acquire the necessary skills in applying statistical techniques in problems.

Content Numerical methods and computing; equations, integrals.
Sources of information: sampling methods, mean, median; quartiles, standard deviation; graphs used in statistics; elementary probability theory; binomial, Poisson and normal distribution; sampling errors, confidence intervals, inference; scatter diagrams, correlation, least square regression, coefficient of determination, prediction; time series, trend, index; statistical research project.

Teaching Lectures and exercises 56 hours, assignments 64 hours.

Assessment Test and assignment.

Literature Will be submitted during the lectures.

293404 **Law II**
(European Community Law and ADP Legislation) 3 ECTS credits(2 credits)

Aims To provide students with a basic understanding of EC Law.
To examine legislation concerning information technology.

Content Sources of EC Law.
Free Movement in the EC.
Copyright.
Privacy Protection Act.
ADP Crimes.
Law concerning the Internet.

Teaching Lectures 40 hours and assignments 40 hours.

Information Systems Specialist Education

Assessment Lecture and reading material test 60 %.
Assignments 40 %.

Literature Submitted during the sessions.

292404   **Leadership and Personnel Management**   **3 ECTS credits (2 credits)**

Aims To get students familiar with the skills and abilities needed for management and basic management functions. To get an outlook of company's personnel planning, recruitment, maintenance and development.

Content Managerial roles, skills and abilities, managerial hierarchy and duties, manager vs. leader, styles of leadership.
Situational leadership.
Personnel management concept, staff planning, methods of job analysis, selection and orientation, training.

Teaching Lectures 25 hours, assignments and reading materials 55 hours.

Assessment Lecture and reading material examination 70 %, assignment 30 %.

Literature Shackleton Viv: Business Leadership. 1995. ISBN-415-12678-9.
Graham H.T.: Human Resource Management. 7th ed ISBN 0 7121 0844 0.

295521   **Scientific Writing**   **4.5 ECTS credits (3 credits)**

Aims To provide the student with the ability and facilities to prepare scientific reports and to get familiar with professional publications.

Content Professional writing in English.
Scientific terminology in information technology.
Process writing and reporting.
Scientific criteria.
Professional publications.
Outline of the Bachelor's thesis.

Teaching Lectures 63 hours and assignments 57 hours.

Assessment Assignment.

Literature Will be submitted during the lessons.

295522   **Research Studies**   **3 ECTS credits (2 credits)**

Aims The aim is that students get acquainted with different forms of research activity and know their application possibilities and viability in their studies and practical work. They perceive the impact of research on their studies and know how to utilise effectively different sources of information. They can perform the different tasks of a research project.

Content   Philosophy of science, polytechnic research, use of data services, research project work, empirical research, research methods, information technology as a tool in research.

Teaching   Contact hours 32 hours and assignments 48 hours.

Assessment   Assignment.

Literature   Will be submitted during the lessons.

295520	**Bachelor's thesis**	**15 ECTS credits (10 credits)**

Aims   Students can apply previously learned knowledge and skills in a developing or research project, and know how to make a thesis on their own special field of education. Projects are closely connected with practical working life.

ELECTIVE STUDIES	**30 ECTS CREDITS (20 credits)**

293043	**WWW Programming**	**3 ECTS credits (2 credits)**

Aims   After this course students are able to create WWW programs into a Web server. They can program a database application which can be used through the Internet/ Intranet.

Content   Introduction to Web programming.
HyperText Markup Language (HTML).
Active Server Pages (ASP).
JavaScript.

Teaching   56 hours.

Assessment   Assignment.

Literature   Will be submitted during the lessons.

294044	**Cobol Programming**	**3 ECTS credits (2 credits)**

Aims   To introduce students to the basics of Cobol programming.

Content   Cobol compiler, Cobol language, program tests and documentation.

Teaching   Lectures 32 hours and assignments 48 hours.

Assessment   Assignment.

Literature   Will be submitted during the lessons.

294045	**C++ Programming I**	**3 ECTS credits (2 credits)**

Aims   To learn the bases of C++- language, and to design and build a program by using C++-language.

Content   The program structure, variables, input and output functions, decisions, loops, functions, arrays and pointers.

Teaching   Lectures and exercises 42 hours, assignments 38 hours.

Assessment A written test.

Literature   Liberty, Jesse: Teach yourself C++ Programming in 21 days. Sams Publishing, 1994.

294046   **C++ Programming II**   **3 ECTS credits (2 credits)**

Aims   To use objects in C++-programs and to design and build object-oriented programs by using C++-language.

Content   The program structure, handling files, objects, classes, inheritance, polymorphism, destructors, variables, memory management.

Teaching   Lectures and exercises 42 hours, assignments 38 hours.

Assessment Assignment.

Literature   Liberty, Jesse: Teach yourself C++ Programming in 21 days. Sams Publishing, 1994.

294047   **Multimedia Programming I**   **3 ECTS credits (2 credits)**

Aims   To give students the ability to do interactive movies. To learn the basic features of Macromedia Director 6.

Content   Macromedia Director 6 and its basic animation techniques of text and objects.

Teaching   Lectures 40 hours, assignment 40 hours (a movie).

Assesment   Assignment 80 % and lectures 20 %.

Literature   To be given during the lessons.

294048   **Multimedia Programming II**   **3 ECTS credits (2 credits)**

Aims   To give students the ability to do more interactive movies. To learn features of Macromedia Director 6 and Lingo-scripts. To make 3D objects.

Content   Macromedia Director 6, Extreme 3D, Xtras and Lingo scripts.

Teaching   Lectures 40 hours and assignment 40 hours (a movie).

Assessment Assignment 80 % and lectures 20 %.

Literature   To be given during the lessons.

294049   **Visual Basic Programming II**   **3 ECTS credits (2 credits)**

Aims   To build database programs, client- server programs and to use VBA script in Office97 documents.

Content   Building and handling databases, using VBA script in Office97 documents (Word, Excel, PowerPoint and Access).

Teaching   Lectures and exercises 42 hours, assignments 38 hours.

Assessment Assignment.

Literature   Will be submitted during the lessons.

294050   **Image Editing**   **3 ECTS credits (2 credits)**

Aims   To give students the ability to use image editing applications.

Content   Scanning images, saving images for different purposes, manipulations most commonly performed on images. Manipulating photographs and graphics. Use of a scanner and scanning programs and PhotoShop image editing program.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment Continuous assessment 30 % and assignment 70 %.

Literature   Will be submitted during the lessons.

294051   **Sound Editing**   **3 ECTS credits (2 credits)**

Aims   To give students the ability to use different kinds of audio formats. To learn how to record voices and how to format and handle them.

Content   Using Audio programs; CoolEdit, WinAmp, RealEncoder etc.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment Assignment 80 % and lectures 20 %.

Literature   Will be submitted during the lessons.

294052   **Hypertext Documents**   **3 ECTS credits (2 credits)**

Aims   To enable students to create hypertext documents. The students will be able to design the hierarchical structure of the document, to define keywords and links and effects for presentation.

Content   Document planning, hypertext editors, designing an application.

Teaching   Lectures 32 hours and assignments 48 hours.

Assessment Assignment.

Literature Will be submitted during the lessons.

294053   **Java Programming**   **3 ECTS credits (2 credits)**

Aims   To familiarise the students with Java programming language, object-oriented programming and designing applications with Java language.

Content   Java environment, basic elements of Java language, objects, programming of graphical user interface, functions and structure of an application.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment An assignment.

Literature Will be submitted later.

294410   **Internet Marketing**   **3 ECTS credits (2 credits)**

Aims   To provide students with basic understanding in marketing with the help of the most modern technology and networks. Integrating the Internet into company's marketing strategy.

Content   Using the Web for marketing**.**
Customer service in the Web.
The Usable Web.
Marketing mix and the Internet.
Designing a commercial Web-site by using an editor program (FrontPage/Browser editor).

Teaching   Lectures 40 hours and assessments 40 hours.

Assessment Written test 50 % and assignment 50 %.

Literature Will be submitted during the lessons.

294409   **Electronic Business**   **3 ECTS credits (2 credits)**

Aims   To provide students with basic understanding in doing business using the most modern technology and networks. This course provides an overview of how the Internet is affecting business today.

Content   The Internet business environment**.**
Network business strategy.

Telematic tools.
Consumer business vs. B-to-B business.
E-commerce vs. e-business.
E-business areas.
Virtual enterprises.
Business forces and the future.

Assessment Written test 50 % and assignment 50 %.

Literature Will be submitted during the lessons.

294054   **Project Administration Tools**   **3 ECTS credits (2 credits)**

Aims To give students the ability to use different project administration tools for project planning and administration.

Content MS-Project as a tool in project work, use of other software in project work.

Teaching Lectures 40 hours and assignments 40 hours.

Assessment Continuous assessment 30 % and assignment 70 %.

Literature Will be submitted during the lessons.

294407   **Business Administration**   **3 ECTS credits (2 credits)**

Aims To provide the students with the idea that employees - human capital - are the most valuable assets of the company. To give a mental image of the how important work motivation and commitment to the organisational goals are for the success of business.

Content Firm's "human capital".
To explain why people work.
Career development.
Frustration and how to reduce frustration.
Informal groups.
Formal organisation and structural options in organisational design.
Need and process theories of work motivation.
Work motivation techniques.

Teaching Contact hours 42 and assignments 38 hours.

Assessment Lecture and reading material test 70 % and assignment 30 %.

Literature Jones Gareth R.: Organizational Theory.
Robbins Stephen P.: Organizational Behaviour.

294408   **Law III (Business Law)**   **3 ECTS credits (2 credits)**

Aims   To provide students with an introduction to company law: who can establish a company and how it should be done, organs and their decision-making systems, right of representation and liabilities.
To give students a basic understanding of the regulations of marketing.

Content   Right to establish a company.
Company forms.
Regulations of marketing.
Consumer protection.

Teaching   Lectures 40 hours and assignments 40 hours.

Assessment Lecture and reading material test 60 % and assignment 40 %.

Literature   Will be submitted at the beginning of the course.

294494   **Increasing Intercultural Awareness**   **3 ECTS credits (2 credits)**

Aims   To sensitise students to intercultural differences and similarities in the international business environment, and to help them to understand and appreciate issues involved in intercultural interaction.

Content   Articles to be read for each session with written assignments to be discussed during the sessions.
Cultural awareness group project to be reported orally and in writing.
Take-home exam.

Teaching   Sessions 24 h and independent work 56 h.

Assessment 80 % active attendance is required, a more exact grading scheme will be submitted during the first session together with the course handout.

Literature   Will be submitted during the first session.

294493   **Lapland in English**   **3 ECTS credits (2 credits)**

Aims   To discuss and learn about Lapland using English. To give students an opportunity to learn more about Lapland and to practice the vocabularity needed in English to

discuss those topics, as well as to give students the opportunity to plan/carry out a hiking trip in Lapland.

Content   Vocabularity related to topics dealing with Lapland, such as local wildlife, flora and fauna, recreational activities, climate and Sami culture. Discussions will be organised to make use of this vocabulary, and simulation exercises will be carried out. Planning and organisation will be practiced in conjunction with the trip to Lapland.

Teaching	15 hours + trip planning

Assessment	Active class participation and a written report at the end of the course.

Literature	Indicative reading: Brochures, Foley and Hurd: A Learner's Glossary of Lapland. University of Lapland, Language Center.

294480	**Finnish I for Finnish students**	**3 ECTS credits (2 credits)**

294481	**Finnish II for Finnish students**	**3 ECTS credits (2 credits)**

294482	**Finnish for Foreigners II**	**3 ECTS credits (2 credits)**

Aims	For students who have studied Finnish basics. To increase the student's ability to use the Finnish language, increasing communication.

Content	Reading, listening to, talking and writing Finnish.

Teaching	Contact lectures 60 hours and assignments 20 hours.

Assessment	Assignments 50 %, test 50 % and 80 % attendance.

Literature	Will be submitted during the lessons.

294056	**Swedish for Finnish Students II**	**3 ECTS credits (2 credits)**

Aims	To develop communication skills in Swedish, written and oral, in business context.

Content	Improving vocabulary, focusing on students' lines of specialisation · basic business correspondence. · oral skills. · EDP and economic terminology.

Teaching	Lectures 42 hours and assignments 38 hours.

Assessment	Written test. Writing assignments. Active participation in class.

Literature	Medspelare i affärer 2 (WSOY). Skriv och ring (WSOY). Magazines and newspapers.

294083	**Swedish Discussions**	**3 ECTS credits (2 credits)**

Aims	To improve students' skills in oral communication in various contexts focusing on students' lines of specialisation.

Content	Discussions, meetings, presentations and report writing.

Teaching	Lectures 42 hoursa and assignments 38 hours.

Assessment	Active participation in class. Preparation for discussions. Writing assignments.

Literature	Medspelare i affärer 2 (WSOY). Magazines and newspapers.

294486	**English**	**3 ECTS credits (2 credits)**
294487	**French I**	**3 ECTS credits (2 credits)**
294489	**Russia**	**3 ECTS credits (2 credits)**
294490	**Spanish**	**3 ECTS credits (2 credits)**
294491	**German**	**3 ECTS credits (2 credits)**

Aims	To develop/ introduce communication skills in German, written and oral in basic situations of everyday life and working life depending on students´ prior studies in German.

Content	Social situations. Business situations.

Teaching	Lectures 42 hours and assignments 38 hours.

Assessment	Written test. Writing assignments. Active participation in class.

Literature	Beginners: Jawohl (WSOY). Advanced: Unternehmen Deutsch (WSOY).

294492	**Discussions**	**3 ECTS credits (2 credits)**

Aims	To improve students' oral language skills on the base of business life situations.

Content	Discussions in business situations.

Teaching	Contact education 24 hours and assignment 16 hours.

Assessment	Active participation in contact lessons and 80% obligatory attendance, drawing up presentations and oral test.

Literature	Magazines and newspapers.

294363	**Physical Education**	**3 ECTS credits (2 credits)**

DEGREE PROGRAMME IN BUSINESS AND ADMINISTRATION

The objective of the degree programme in Business and Administration is to educate specialists in the special features of the northern region, providing them with abilities and skills to employ themselves either working for someone else or as independent entrepreneurs in a world becoming more and more international. The various specialisation alternatives enable students to specialise in different fields. The graduates can work in independent and responsible tasks in planning, management and leadership for enterprises and the public sector. The education allows the inclusion of elective studies and different modes of studying, close connections with working life, and encourages an enquiring and developing approach to own career and work.

The education leads to a polytechnic degree in business (BBA =Bachelor of Business Administration). The extent of the degree programme is 210 ECTS credits and the studies take about 3.5 years to complete. Earlier studies and working experience can also be credited. The degree programme consists of basic studies (60 ECTS credits/40 credits), professional studies (75 ECTS credits/50 credits), elective studies (30 ECTS credits/20 credits), practical training (30 ECTS credits/20 credits) and diploma work (15 ECTS credits/10 credits).

The language of instruction is Finnish. The degree programme is realised both in Kemi and Tornio. Basic studies are the same for all students and they are offered in both towns, whereas other studies and specialisation alternatives have different focuses. The degree programme of Business and Administration includes four specialisation alternatives of which one is realised in Kemi and three in Tornio.

Specialisation alternative of business and administration available in Kemi:
·	Business Activities and Marketing
Specialisation alternatives available in Tornio:
·	Management Accounting
·	International Business Operations
·	Travel and Tourism Development

Business Activities and Marketing (Kemi)

The objective of the Business Activities and Marketing alternative is to give students the knowledge and ability to develop and manage entrepreneurship and marketing of enterprises and other organisations as well as to act as independent entrepreneurs. Studies focus on a comprehensive management of environment-conscious business activity, on enhancement of companies' international competitiveness and co-operative networks and on strategic and customer-relationship/network marketing. During the studies co-operation with local enterprises and research in small or medium-sized companies utilising co-operative networks are emphasised.

Management Accounting (Tornio)

The graduates specialising in Management Accounting are able to produce accountancy information for different decision-making situations, to develop accounting systems and their own problem-solving ability. They know the methods of managing enterprises and know how to use the knowledge of accountancy as an instrument of management. They know the

legislation concerning different operations in a company and are prepared to act in tasks of financial adminstration in international enterprises.

International Business Operations (Tornio)

The objective of the International Business Operations alternative is to provide students with the understanding the importance of internationalisation for enterprises and society. The graduates are able to communicate fluently both in writing and orally in different situations of international working life. They can independently manage responsibilities of varying degrees in internal, external and posterior marketing and as private entrepreneurs. They master research in marketing and procedures of foreign trade.

Travel and Tourism Development (Tornio)

The graduates specialising in Travel and Tourism Development alternative know the process of producing travel and tourism services in various tasks involving planning, development and implementation of travel and tourism trade nationally and internationally. They understand the necessity of sustainable development and measures saving the environment and can work as independent entrepreneurs understanding the importance of networking and the service ethic.

BASIC STUDIES IN KEMI AND TORNIO

116010/216010	Orientation into Polytechnical Studies	4,5 ECTS credits/3 credits
116011/216011	Changing Society, Working Life and Professional Skills	
		4,5 ECTS credits/3 credits
116012/216012	Operation of Organisations	4,5 ECTS credits/3 credits
116013/216013	Basics of Logistics	3 ECTS credits/2 credits
116014/216014	Basics of Marketing	4,5 ECTS credits/3 credits
116015/216015	Basics of Accountancy	4,5 ECTS credits/3 credits
116016/216016	Basics of Legal Science	4,5 ECTS credits/3 credits
116017/216017	Basics of Economics	4,5 ECTS credits/3 credits
116018/216018	Information Technology	3 ECTS credits/2 credits
116019/216019	Utilisation of Information Technology	
		3 ECTS credits/2 credits
116020/216020	Office Automation	3 ECTS credits/2 credits
116021/216021	Financial Mathematics	3 ECTS credits/2 credits
116022/216022	Finnish Language and Communication	4,5 ECTS credits/3 credits
116023/216023	SwedishLanguage and Communication	4,5 ECTS credits/3 credits
116024/216024	English Language and Communication	4,5 ECTS credits/3 credits

GENERAL PROFESSIONAL STUDIES IN KEMI

117010	Research Studies	3 ECTS credits/2 credits
117012	Statistical Methods	6 ECTS credits/4 credits
117015	Swedish Language and Communication	3 ECTS credits/2 credits
117016	Business Communication, Presentations, Meetings and	
	Related Reporting (in English)	3 ECTS credits/2 credits
117018	Foreign Language (basic or intermediate)	3 ECTS credits/2credits
117020	Office Services and Ergonomics	6 ECTS credits/4 credits

LINE-SPECIFIC PROFESSIONAL STUDIES

Business Activities and Marketing

M11860	**Becoming an Expert**	**1,5 ECTS credits/1 credit**
	118602 Research Activity	1,5 ECTS credits/1 credit

M11881	**Establishing an Enterprise and Planning and Implementation of Business Operations**	**12 ECTS credits/8 credits**
	118805 External Financing in Enterprises	3 ECTS credits/2 credits
	118806 Accountancy and Taxation	4,5 ECTS credits/3 credits
	118808 Establishing an Enterprise and Related Legal Procedures	
		3 ECTS credits/2 credits
	Elective Course in Law	1,5 ECTS credits/1 credit

M11882	**Planning and Development of Marketing**	**9 ECTS credits/6 credits**
	118810 Marketing Research	3 ECTS credits/2 credits
	118811 Marketing Strategies	3 ECTS credits/2 credits
	118812 Export Marketing	3 ECTS credits/2 credits

M11883	**Business Management and Development**	**12 ECTS credits/8 credits**
	118820 Strategic Management	3 ECTS credits/2 credits
	118821 Human Resource Management	3 ECTS credits/2 credits
	118822 Financial Management of Enterprises	3 ECTS credits/2 credits
	118823 Service Strategies of Enterprises and Business Culture	
		3 ECTS credits/2 credits

M11884	**Internationalisation of an Enterprise and Co-operative Networks**	
		9 ECTS credits/6 credits
	118825 Internationalisation of an Enterprise and Export - Import Operations	
		4,5 ECTS credits/3 credits
	118826 International Competitiveness of an Enterprise and Co-operative Networks	4,5 ECTS credits/3 credits

M11880	**Becoming an Expert**	**7,5 ECTS credits/5 credits**
	118800 Project Activity	3 ECTS credits/2 credits
	118802 Research Activity	1,5 ECTS credits/1 credit
	118601 A Course in a Foreign Language	3 ECTS credits/2 credits

GENERAL PROFESSIONAL STUDIES IN TORNIO

217010	Research Studies	4,5 ECTS credits/3 credits
217011	Human Resource Management	3 ECTS credits/2 credits
217012	Marketing Management	3 ECTS credits/2 credits
217013	Basics of Operative Accountancy	3 ECTS credits/2 credits
217014	International Law	3 ECTS credits/2 credits
217015	Swedish Business Communication 1 (in Swedish)	
		3 ECTS credits/2 credits
217016	Business Communication, Presentations, Meetings and Related Reporting (in English)	3 ECTS credits/2 credits

MANAGEMENT ACCOUNTING

M21810 Financial Accounting in Practice   **6 ECTS credits/4 credits**
      218100 Financial Accounting Theory and Practice   3 ECTS credits/2 credits
      218101 Information Systems in Accounting   3 ECTS credits/2 credits

M21811   **Effective Cost Management**   **10,5 ECTS credits/7 credits**
      218105 Cost Accounting in Manufacturing Enterprises 3 ECTS credits/2 credits
      218106 Activity-Based Costing   3 ECTS credits/2 credits
      218107 Quality and Accounting Information Systems 4,5 ECTS credits/3 credits

M21812   **Financial Management**   **6 ECTS credits/4 credits**
      218110 Financial Planning   3 ECTS credits/2 credits
      218111 Financial Analysis   3 ECTS credits/2 credits

M2 1813   **Financial Statements and Taxation** **10,5 ECTS credits/7 credits**
      218115 Management of Corporate Taxation   4,5 ECTS credits/3 credits
      218116 Consolidated Financial Statements   3 ECTS credits/2 credits
      218117 International Financial Accounting   3 ECTS credits/2 credits

M21814   **Financial Management Law**   **12 ECTS credits/8 credits**
      218120 Company Law   4,5 ECTS credits/3 credits
      218121 Credits and Securities   3 ECTS credits/2 credits
      218122 Labour Law   4,5 ECTS credits/3 credits

M21815   **Advanced Studies in Management Accounting** **7,5 ECTS credits/5 credits**
      218130 Advanced Management and Law   4,5 ECTS credits/3 credits
      218600 Method Studies   3 ECTS credits/2 credits

INTERNATIONAL BUSINESS OPERATIONS

M21820   **International Working Environment of Enterprises**

                               9 ECTS credits/6 credits
      218200 Internationalisation of Companies   3 ECTS credits/2 credits
      218201 Economic Geography   3 ECTS credits/2 credits
      218202 Professional Reading, Writing and Discussions (in English)
                               3 ECTS credits/2 credits

M21821   **Marketing in International Enterprises** **15 ECTS credits/10 credits**
      218206 International Marketing   6 ECTS credits/4 credits
      218207 Swedish Business Communication 1 (in Swedish)
                            4,5 ECTS credits/3 credits
      218208 English for International Business (in English) 3 ECTS credits/2 credits

M21822   **International Trade**   **6 ECTS credits/4 credits**
      218210 International Economics   3 ECTS credits/2 credits
      218211 Export and Import Operations   1,5 ECTS credits/1 credit

M21823	**Foreign Trade**	6 ECTS credits/4 credits
	218215 Transportations in Foreign Trade	3 ECTS credits/2 credits
	218216 Payments and Financing in Foreign Trade	3 ECTS credits/2 credits

M21824	**Obligatory Elective Language Studies**	**9 ECTS credits/6 credits**
	218220 Intermediate German 1	3 ECTS credits/2 credits
	218221 Intermediate German 2	3 ECTS credits/2 credits
	218222 Advanced German	3 ECTS credits/2 credits
	218226 Intermediate French 1	3 ECTS credits/2 credits
	218227 Intermediate French 2	3 ECTS credits/2 credits
	218228 Advanced French	3 ECTS credits/2 credits
	218230 Intermediate Russian 1	3 ECTS credits/2 credits
	218231 Intermediate Russian 2	3 ECTS credits/2 credits
	218232 Advanced Russian	3 ECTS credits/2 credits

M21829	**Advanced Studies of International Business Operations**	
		7,5 ECTS credits/5 credits
	218235 Advanced International Operations	4,5 ECTS credits/3 credits
	218600 Method Studies	3 ECTS credits/2 credits

TRAVEL AND TOURISM DEVELOPMENT

M21835	**Tourist Industry**	**12 ECTS credits/8 credits**
	218320 Introduction into Tourism and Tourist English	3 ECTS credits/2 credits
	218321 Marketing in Tourism	3 ECTS credits/2 credits
	218322 Tourist Entrepreneurship and Product Development	
		3 ECTS credits/2 credits
	218323 Financial Management in Tourism and Service Enterprises	
		1,5 ECTS credits/1 credit
	218324 Juridical Issues in Tourism	1,5 ECTS credits/1 credit

M21836	**Tourism**	**13,5 ECTS credits/9 credits**
	218325 Projects	1,5 ECTS credits/1 credit
	218326 Environmental Issues in Tourism	3 ECTS credits/2 credits
	218327 Tourism in Finland and Lapland	3 ECTS credits/2 credits
	218328 Culture and History in Tourism	3 ECTS credits/2 credits
	218329 International Tourism	3 ECTS credits/2 credits

M21837	**Adventure Tourism**	**10,5 ECTS credits/7 credits**
	218330 Orientation Programme	1,5 ECTS credits/1 credit
	218331 Practical Adventure Skills	3 ECTS credits/2 credits
	218332 Adventure Tourism Theory	6 ECTS credits/4 credits

M21831	**Language Studies**	**9 ECTS credits/6 credits**
	218221 Intermediate German 2	3 ECTS credits/2 credits
	218310 Advanced Tourist German	1,5 ECTS credits/1 credit
	218226 Intermediate French 2	3 ECTS credits/2 credits
	218311 Intermediate Tourist French	1,5 ECTS credits/1 credit
	218231 Intermediate Russian 2	3 ECTS credits/2 credits
	218312 Advanced Tourist Russian	1,5 ECTS credits/1 credit
	218313 Tourism and Marketing (in Swedish)	3ECTScredits/2 credits

M21839	**Advanced Studies in Tourism**	**7,5 ECTS credits/5 credits**
	218309 Advanced Tourism	4,5 ECTS credits/3 credits
	218600 Method Studies	3 ECTS credits/2 credits

ELECTIVE STUDIES	**30 ECTS credits/20 credits**
PRACTICAL TRAINING	**30 ECTS credits/20 credits**
BACHELOR'S THESIS	**15 ECTS credits/10 credits**

DEGREE PROGRAMME IN DATA PROCESSING

The objective of the degree programme in Data Processing is to give the students up-to-date professional, administrative, judicial and economic knowledge and skills in information technology to carry out tasks of designing, management and development on different levels. The graduates know how to implement and manage information systems and communicate effectively with the management, clients and external experts.

The education leads to a polytechnic degree in business (BBA =Bachelor of Business Administration). The extent of the degree programme is 210 ECTS credits and the studies take about 3.5 years to complete. Earlier studies and working experience can also be credited. The degree programme consists of basic studies (60 ECTS credits/40 credits), professional studies (75 ECTS credits/50 credits), elective studies (30 ECTS credits/20 credits), practical training (30 ECTS credits/20 credits) and diploma work (15 ECTS credits/10 credits). **The language of instruction is Finnish.**

Specialisation alternatives of data processing are:
- · EDP Analyst and System Planner
- · Software Expert and Instructor
- · Commercial Information Technologies

EDP Analyst and System Planner

The graduates of the EDP Analyst and System Planner alternative know how to design, implement, update and develop information systems. They know the application possibilities, limitations and program development in information technology. In addition, they know how to purchase a computer system and make agreements concerning it. The graduates can work e.g. as Systems Planners, EDP Analysts, Applications Programmers and Network Specialists.

Software Expert and Instructor

The graduates of the Software Expert and Instructor alternative know how to make a training plan and carry out training according to it. They know the most common utility and applications programs, information technology equipment and application possibilities and limitations of information technology in working life. The graduates can work e.g. as Personal Support Advisors, Data Consultants, Data Instructors and Informaticians.

Commercial Information Technologies

The graduates specialising in Commercial Information Technologies possess the skills to create and build electronic commerce sites. Further they programme WWW applications in internet and intranet environments. They master information network marketing and the judicial issues, potential and limitations concerning networks. The graduates can work e.g. as Webmasters, Network Operators and Network Support Advisors

BASIC STUDIES

1. Study Skills	**7,5 ECTS credits/5 credits**
221000 Introduction into Polytechnic Studies	3 ECTS credits/2 credits
221001 Finnish Language and Communication	4,5 ECTS credits/3 credits
2. Operation of Society	**12 ECTS credits/8 credits**
221040 Changing Society, Working Life and Professional Skills	3 ECTS credits/2 credits
221041 Basics of Economics	4,5 ECTS credits/3 credits
221042 Basics of Legal Science	4,5 ECTS credits/3 credits
3. Entreneurship	**12 ECTS credits/8 credits**
221080 Operation of Organisations	3 ECTS credits/2 credits
221081 Basics of Marketing	4,5 ECTS credits/3 credits
221082 Basics of Accountancy	4,5 ECTS credits/3 credits
4. Basics of Data Processing	**10,5 ECTS credits/7 credits**
221120 Basics of Information Technology	3 ECTS credits/2 credits
221121 Utilisation of Information Technology	7,5 ECTS credits/5 credits
5. Basics of Programming	**7,5 ECTS credits/5 credits**
221160 Programming Techniques and C Programming	7,5 ECTS credits/5 credits
6. Information Systems Analysis and Construction	**4,5 ECTS credits/3 credits**
221200 Basics of Data Systems Planning	4,5 ECTS credits/3 credits
16. Foreign Languages	**6 ECTS credits/4 credits**
221600 English	3 ECTS credits/2 credits
221601 Swedish	3 ECTS credits/2 credits

GENERAL PROFESSIONAL STUDIES

5. Basics of Programming	**13,5 ECTS credits/9 credits**
222161 Advanced Programming and C++ Language	6 ECTS credits/4 credits
222162 Object-Oriented Programming	3 ECTS credits/2 credits
222163 WWW Programming	4,5 ECTS credits/3 credits
6. Information Systems Analysis and Construction	**9 ECTS credits/6 credits**
222201 Data Systems Planning and Computer Law	6 ECTS credits/4 credits
222202 EDP-Technical Planning	3 ECTS credits/2 credits

7. Databases	**3 ECTS credits/2 credits**
222240 Databases and SQL	3 ECTS credits/2 credits

8. Data Communications	**3 ECTS credits/2 credits**
222280 Data Communications	3 ECTS credits/2 credits

12. Operating Systems	**3 ECTS credits/2 credits**
222440 Operating Systems	3 ECTS credits/2 credits

13. EDP Devices	**3 ECTS credits/2 credits**
222480 Personal Computers	3 ECTS credits/2 credits

14. Research Studies	**7,5 ECTS credits/5 credits**
222520 Mathematics	4,5 ECTS credits/3 credits
222521 Research Studies	3 ECTS credits/2 credits

16. Foreign Languages	**6 ECTS credits/4 credits**
222602 English	3 ECTS credits/2 credits
222603 Swedish/German	3 ECTS credits/2 credits

LINE-SPECIFIC PROFESSIONAL STUDIES

EDP Analyst and Systems Planner

6. Information Systems Analysis and Construction	**3 ECTS credits/2 credits**
223203 Object-Oriented Approach	3 ECTS credits/2 credits

8. Data Communications	**3 ECTS credits/2 credits**
223281 Advanced Data Communications	3 ECTS credits/2 credits

9. Applications Programs	**3 ECTS credits/2 credits**
223320 Case-Tools	3 ECTS credits/2 credits

10. Special Programming	**10,5 ECTS credits/7 credits**
223360 Data Analysis and Macro Programming	3 ECTS credits/2 credits
223361 Groupware	3 ECTS credits/2 credits
223362 Windows Programming	4,5 ECTS credits/3 credits

14. Research Studies	**,5 ECTS credits/5 credits**
225523 Method Studies	3 ECTS credits/2 credits
225524 Theoretical Basics of Information Technology	4,5 ECTS credits/3 credits

Software Expert and Instructor

9. Applications Programs	**7,5 ECTS credits/5 credits**
223321 Publishing Programs and Word Processing	3 ECTS credits/2 credits
223322 Data Systems of Financial Management	4,5 ECTS credits/3 credits

11. Adult Education   **16,5 ECTS credits/11 credits**
223400 Adult Education 1   4,5 ECTS credits/3 credits
223401 Adult Education 2   7,5 ECTS credits/5 credits
225402 Theoretical Basics of Adult Education   4,5 ECTS credits/3 credits

14. Research Studies   **3 ECTS credits/2 credits**
225523 Method Studies   3 ECTS credits/2 credits

Commercial Information Technologies

22. Information Technology   **19,5 ECTS credits/13 credits**
223840 Implementing Web Server   3 ECTS credits/2 credits
223841 Web Service Programming   4,5 ECTS credits/3 credits
            223842 Specification of Electronic Commerce Sites   4,5 ECTS credits/3 credits
223843 Business in Information Networks   4,5 ECTS credits/3 credits
223844 Communication in Electronic BusinessEnvironment   3 ECTS credits/2 credits

14. Research Studies   **7,5 ECTS credits/5 credits**
225523 Method Studies   3 ECTS credits/2 credits
225524 Theoretical Basics of Information Technology   4,5 ECTS credits/3 credits

ELECTIVE STUDIES   **30 ECTS credits/20 credits**
PRACTICAL TRAINING   **30 ECTS credits/20 credits**
BACHELOR'S THESIS   **15 ECTS credits/10 credits**

DEGREE PROGRAMME IN LOGISTICS

The Degree Programme of Logistics is a joint degree programme carried out by the Unit of Management and Commerce and the Unit of Technical Education. The objective of the degree programme is to educate business-oriented professionals capable of applying modern logistic way of thinking and acting.

The education in the Unit of Management and Commerce leads to a polytechnic degree in business (BBA =Bachelor of Business Administration). The extent of the degree programme is 210 ECTS credits and the studies take about 3.5 years to complete. Earlier studies and working experience can also be credited. The degree programme consists of basic studies (60 ECTS credits/40 credits), professional studies (75 ECTS credits/50 credits), elective studies (30 ECTS credits/20 credits), practical training (30 ECTS credits/20 credits) and diploma work (15 ECTS credits/10 credits). **The language of instruction is Finnish.**

Specialisation alternative available in the Unit of Management and Commerce:
· Business Logistics

Business Logistics

The graduates specialising in Business Logistics have acquired abilities and skills to carry out management or expert tasks involved in purchasing, production and recycling logistics. They can use their knowledge of logistics also as private entrepreneurs. The specialisation alternative focuses on purchasing, distribution logistics, logistics management and versatile communication skills.

BASIC STUDIES

136010	Introduction into Polytechnic Studies	3 ECTS credits/2 credits
136011	Changing Society	3 ECTS credits/2 credits
136012	Operation of Organisations	3 ECTS credits/2 credits
136013	Modern Logistics	6 ECTS credits/4 credits
136014	Basics of Marketing	4,5 ECTS credits/3 credits
136015	Basics of Accountancy	3 ECTS credits/2 credits
136016	Basics of Legal Science	3 ECTS credits/2 credits
136017	Basics of Economics	3 ECTS credits/2 credits
136018	Information Technology	3 ECTS credits/2 credits
136019	Utilisation of Information Technology	3 ECTS credits/2 credits
136020	Office Automation	3 ECTS credits/2 credits
136021	Commercial Mathematics	3 ECTS credits/2 credits
136022	Business Communication	3 ECTS credits/2 credits
136023	Swedish Language and Communication	4,5 ECTS credits/3 credits
136024	English Language and Communication	4,5 ECTS credits/3 credits

GENERAL PROFESSIONAL STUDIES

137018	Foreign Language (elementary or continued)	6 ECTS credits/4 credits
137010	Research Activity	3 ECTS credits/2 credits
137012	Statistical Methods	3 ECTS credits/2 credits
137015	Swedish Language and Communication	3 ECTS credits/2 credits
137016	Business Communication in Logistics (in English)	4,5 ECTS credits/3 credits

LINE-SPECIFIC PROFESSIONAL STUDIES

M13860	**Becoming an Expert**	**9 ECTS credits/6 credits**
	138611 Logistics Project	3 ECTS credits/2 credits
	138612 Research Studies	3 ECTS credits/2 credits
	138618 Foreign Language	3 ECTS credits/2 credits
M13861	**Essential Professional Knowledge of Logistics**	**15 ECTS credits/10 credits**
	138601 Purchasing Activities and Material Guidance	6 ECTS credits/4 credits
	138602 Transportation	6 ECTS credits/4 credits
	138610 Logistics Services	3 ECTS credits/2 credits
M13862	**Methodical Skills in Logistics and International Environment**	
		15 ECTS credits/10 credits
	138604 Activity-Based Costing	3 ECTS credits/2 credits
	138607 Transportation and Insurance Law	3 ECTS credits/2 credits
	138608 Transportation Economics	3 ECTS credits/2 credits
	138609 International Business Operations	3 ECTS credits/2 credits
	138613 Planning of Transportations	3 ECTS credits/2 credits

M13863	**Management and Development in Logistics**	**15 ECTS credits/10 credits**
	138614 Logistic Information Systems	3 ECTS credits/2 credits
	138615 Developing Business Process	6 ECTS credits/4 credits
	138616 Developing Logistics Strategy	3 ECTS credits/2 credits
	138617 Strategic Purchasing	3 ECTS credits/2 credits

M13864	**Production Logistics**	**9 ECTS credits/6 credits**
	138605 Storage Technique	3 ECTS credits/2 credits
	32001000 Basics of Electronics	3 ECTS credits/2 credits
	33011111 Production Management	3 ECTS credits/2 credits

ELECTIVE STUDIES	**30 ECTS credits/20 credits**
PRACTICAL TRAINING	**30 ECTS credits/20 credits**
BACHELOR'S THESIS	**15 ECTS credits/10 credits**

DEGREE PROGRAMME IN PRODUCT DEVELOPMENT AND INTERNATIONAL MARKETING

The Degree Programme of Product Development and International Marketing is a joint degree programme implemented by the Unit of Management and Commerce and the Unit of Technical Education. The objective of the degree programme is to educate creative professionals capable of designing, developing and marketing products and services for international markets.

The education in the Unit of Management and Commerce leads to a polytechnic degree in business (BBA =Bachelor of Business Administration). The extent of the degree programme is 210 ECTS credits and the studies take about 3.5 years to complete. Earlier studies and working experience can also be credited. The degree programme consists of basic studies (60 ECTS credits/40 credits), professional studies (75 ECTS credits/50 credits), elective studies (30 ECTS credits/20 credits), practical training (30 ECTS credits/20 credits) and diploma work (15 ECTS credits/10 credits). **The language of instruction is Finnish.**

Specialisation alternative available in the Unit of Management and Commerce:
· International Marketing

International Marketing

The objective of the International Marketing alternative is to give students abilities and skills involving marketing, administration and management in international business environments. Studies focus on marketing, international business operations and cultures, international competitiveness and languages.

BASIC STUDIES

126019	Utilisation of Information Technology	3 ECTS credits/2 credits
126016	Basics of Legal Science	3 ECTS credits/2 credits
34010401	Algebra	3 ECTS credits/2 credits
126023	Swedish Language and Communication	4,5 ECTS credits/3 credits
126020	Office Automation	3 ECTS credits/2 credits
126024	English Language and Communication	4,5 ECTS credits/3 credits
31010010	Mechanical Drawing 1	3 ECTS credits/2 credits
33011050	Product Development	3 ECTS credits/2 credits
126032	Commercial Mathematics	4,5 ECTS credits/3 credits
126031	Communication in Organisations	1,5 ECTS credits/1 credit
126014	Basics of Marketing	4,5 ECTS credits/3 credits
126013	Basics of Logistics	3 ECTS credits/2 credits
121151	Basics of Economics	3 ECTS credits/2 credits
126030	Basics of Accountancy	4,5 ECTS credits/3 credits
31010011	Mechanical Drawing 2	3 ECTS credits/2 credits
33011020	Industrial Design 1	3 ECTS credits/2 credits
31010510	Basics of Fabricating Techniques	3 ECTS credits/2 credits
121050	Mathematical Statistics	3 ECTS credits/2 credits
126010	Introduction into Polytechnic Studies	3 ECTS credits/2 credits
126012	Operation of Organisations	3 ECTS credits/2 credits
126018	Basics of Information Technology	3 ECTS credits/2 credits
122002	Research Activity	3 ECTS credits/2 credits
126011	Changing Society, Working Life and Professional Skills	
		3 ECTS credits/2 credits

PROFESSIONAL STUDIES

M12910 **Marketing Research and Communication** **16,5 ECTS credits/11 credits**
129100 International Economics   3 ECTS credits/2 credits
129101 International Law   1,5 ECTS credits/1 credit
129102 Marketing Research   3 ECTS credits/2 credits
129103 Business Communication   3 ECTS credits/2 credits
129104 Foreign Language   3 ECTS credits/2 credits
129105 Marketing Communication   3 ECTS credits/2 credits

M12911 **International Business Operations and Export Marketing**
    15 ECTS credits/10 credits
129106 International Marketing   4,5 ECTS credits/3 credits
129107 International Business Operations   4,5 ECTS credits/3 credits
129108 Business Communication, Presentations, Meetings
      and Related Reporting (in English)   3 ECTS credits/2 credits
129109 Swedish Language and Communication 2   3 ECTS credits/2 credits

M12912 **Business Cultures and Negotiation** **15 ECTS credits/10 credits**
129110 Business Cultures   3 ECTS credits/2 credits
129111 Negotiations and the Language of Agreements (in English)
    3 ECTS credits/2 credits

129112 Business-Directed Accountancy	3 ECTS credits/2 credits
129113 International Commercial Law	3 ECTS credits/2 credits
129114 Personnel Management	3 ECTS credits/2 credits

M12913   **Strategic Marketing and Management**   **13,5 ECTS credits/9 credits**

129115 Marketing Strategies and Management	3 ECTS credits/2 credits
129116 Basics of Production Management	3 ECTS credits/2 credits
129117 Financial Management (in English)	3 ECTS credits/2 credits
129118 Competition in International Market (in English)	
	3 ECTS credits/2 credits
129119 International Business Operations (in English)	
	1,5 ECTS credits/1 credit

ELECTIVE STUDIES	**30 ECTS credits/20 credits**
PRACTICAL TRAINING	**30 ECTS credits/20 credits**
BACHELOR'S THESIS	**15 ECTS credits/10 credits**

DEGREE PROGRAMME IN HEALTH CARE AND NURSING
Bachelor of nursing

The Unit of Health Care and Nursing offers studies which enable students to work as nurses and health visitors in hospitals or health centres as well as in homes for the elderly, service houses and other residential settings. In the future there will be more jobs available in the area of health care in the private sector, as an employee or as an entrepreneur, and the studies prepare the students for these opportunities. The graduated students are qualified to work in Finland as well as abroad.

The aim of the programme is to provide the students with a broad core knowledge base as well as the advanced knowledge necessary to fulfill current and future needs in health care. The students receive a good knowledge of nursing science and nursing research so as to be able to contribute to the development of nursing. In the learning process the student formulates links between practical experience and theoretical concepts. These links require the integration of theory and practice and that is facilitated by, for example, reflection on practice. Students are also offered a good opportunity to promote their personal growth and development. The role of the lecturer is that of a resource and the facilitator of the learning process.

The duration of the studies is 3.5 years and the extent of credit 210 ECTS credits/140 credits. The degree programme comprises the following main elements: Basic Studies 60 ECTS credits, Professional Studies 112.5 ECTS credits (compulsory studies 70.5 ECTS credits and alternative advanced studies 42 ECTS credits), Elective Studies 22.5 ECTS credits and Bachelor´s Thesis 15 ECTS credits. Each term includes a period of clinical practice in a specific area and the total portion devoted to practice is 82.5 ECTS credits. The language of the instruction is either Finnish or a combination of Swedish and English. International students can participate in instruction in English.

Methods used by the students and teachers are lectures, seminars, workshops, laboratory work, practicals, projects, independent work and assignments and clinical practice. The team-teaching method is also used by the teachers in order to integrate the subjects of the modules into a relevant whole.

If you intend to study the whole degree programme in Kemi-Tornio Polytechnic, please note that the education programme follows the Finnish national common application deadlines which vary from year to year. Please inquire at the education unit for details of this year's deadlines. The application forms can be obtained from the education unit.

The Unit Coordinator for ECTS
Ms. Eila Huhtala
Mobile phone +358 400 695 908
E-mail: eila.huhtala@tokem.fi

Note: all information given here is preliminary and should be checked by the education unit.

		1st year		2nd year		3rd year		
		ECTS		ECTS		ECTS		
Code	Course	autumn	spring	autumn	spring	autumn	spring	au
	BASIC STUDIES							
	Introduction to Polytechnic Studies	5,25	1,5		1,5			
	Communication and Interaction	3,75	3,0					
	Physical and Psychological functions	4,50	8,25					
	Environment and Society	5,25	3,0					
	Foundations of Professional Nursing	11,25	12,75					
	COMPULSORY PROFESSIONAL STUDIES							
	Medical-Surgical Nursing and Perioperative Nursing							
	The Basis of Medical/Surgical and Perioperative Nursing			3,0				
	Medical Nursing			10,5				
	Surgical and Perioperative Nursing			14,25				
	Health Promotion							
	The Basis of Health Promotion				3,0			
	Promotion of the Health of Children and Adolescents				4,5			
	Promotion of the Health of Adults				6,0			
	Promotion of the Health of Older Adults and District Nursing				5,25			
	Pediatric Nursing					7,5		
	Maternity and Gynaecological Nursing					6,75		
	Psychiatric Nursing					9,0		
	ALTERNATIVE ADVANCED STUDIES							
	Medical-surgical Nursing							
	Nursing Methods						6,75	
	Critically Ill Patient						3,0	
51SH0050	Practice						10,5	
	Nursing Expertise and Administration							
	Nursing in International Context							
51SH0070	Practice							
	Perioperative Nursing							
	Perioperative Nursing						5,25	
	Critically Ill Patient						4,5	
51SH0150	Practice						10,5	
	Nursing development and Administration in Perioperative Nursing							
	Nursing in International Context							
51SH0170	Practice							
	Psychiatric Nursing							
	Holistic Psychiatric Nursing in Community Level						6,75	
	Client/Patient Centred Holistic Nursing						3,0	
51SH0240	Practice						10,5	
	Nursing development and Administration in Psychiatric Nursing							
	Nursing in International Context							
	Practice							
	Health Visiting							
	Nine Month's Journey						4,5	
	Children and Adolescents						4,5	
51SH0330	Practice						10,5	
	Adults							
	Health Care of Older Adults and Home Care							
51SH0350	Practice							
	ELECTIVES							
51VH0010	Theoretical Studies			3,0	3,00	3,00	3,00	
51VH0020	Practice			4,5			1,5	
	BACHELOR'S THESIS			1,5	3,0	4,5		

BASIC STUDIES   **60 ECTS credits (40 credits)**

The first year

> **The first module**
> **INTRODUCTION TO POLYTECHNIC STUDIES**   **8.25 ECTS credits**
> **(5.5 Finnish credits)**

Aims   The student
- · adapts him/herself to the Polytechnic's studying environment.
- · learns the sufficient knowledge and technical skills to work with the computers needed in studies and at work.
- · becomes familiar with the most important computer applications in the field of health care.
- · gains the ability to study independently.

Content   51PY0010   Orientation studies
               51PY0240   Philosophical Study of Humanity and Ethics
               51PY0020   Information Skills
               51PY0030   Computer Science and ADP
               51PY0190   Statistics

Teaching   Tutoring in groups and individually, lectures, workshops, independent work.

Assessment Written tests, skill test and independent assignments.

Literature Topical literature.

> **The second module**
> **COMMUNICATION AND INTERACTION**   **6.75 ECTS credits**
> **(4.5 credits)**

Aims   The student
- · develops his/her interactive skills that are needed in the field of health care as an individual and in a group.

Content   51PH0040 Written communication
               51PH0040 Spoken communication
               51PH0050 Swedish
               51PH0060 English
               51PY0070 Interaction and Group Dynamics

Teaching   Lectures, exercises, independent assignments.

Assessment Active participating in teaching, 80 % in attendance and independent assignments.

Literature Topical literature.

The third module
PHYSICAL AND PSYCHOLOGICAL FUNCTIONS   12.75 ECTS credits
(8.5 credits)

Aims   The student recognises the physical and psychological functions that adjust
                 the life of a person.

Content   51PH0080   Anatomy and Physiology
                 51PH0090   Pathophysiology
                 51PH0100   Physical Exercise
                 51PH0110   Psychology
                 51PH0030   Science of Education
                 51AH0030   Nutrition

Teaching   Lectures, workshops, exercises, independent assignments.

Assessment   Written tests and independent assignments.

Literature   Topical literature.

The fourth module
ENVIRONMENT AND SOCIETY   **8.25 ECTS credits**
                                                 (5.5 credits)

Aims   The student becomes aware of different conseptions of humanity and health care
                 as a part of the society.

Content   51PY0150   Economics
                 51PH0130   Sociology
                 51PY0140   Social Policy
                 51PH0160   Public Health Science
                 51PY0170   Environment and Health
                 51PH0200   Art and Culture
                 51PH0150   Creativity

Teaching   Lectures, workshops, independent assignments.

Assessment   Written tests and independent assignments.

Literature   Topical literature.

The fifth module
FOUNDATIONS OF PROFESSIONAL NURSING   24 ECTS credits
                                            (16 credits)
Aims   The student understands nursing as a profession and is motivated to study and
                 develop his/her work.

Content   51PH0210   Basic Studies of Nursing
                 51PH0220   Helping Methods in Nursing
                 51AH0010   Drug Administration Skills

51AH0020	Gerontological Nursing
51PH0230	First Aid
51AH0040	Microbiology, Asepsis, Hospital Hygiene
51PH0250	Practice

Teaching   Lectures, classroom practice, workshops, independent assignments, clinical practice.

Assessment   Active participating in teaching and 80 % in attendance, written tests, skill tests, independent assignments, clinical practice.

Literature   Topical literature.

COMPULSORY PROFESSIONAL STUDIES   **70.5 ECTS credits**
(47 credits)

The third term

**MEDICAL - SURGICAL NURSING
AND PERIOPERATIVE NURSING**   **27.75 ECTS credits**
(18.5 credits)

The first module:
**THE BASIS OF MEDICAL - SURGICAL AND
PERIOPERATIVE NURSING**   **3 ECTS credits (2 credits)**

Aims   The student
- forms a general picture of clinical laboratory medicine and radiology and understands their significance and physiological background as well as the clinical application in caring for the patient
- is familiar with different medical substances, pharmaceutical products and their effect mechanisms and understands their proper use in different diseases and functional disorders
- is able to counsel patients with a special diet
- is able to meet people in crises of life.

Content
51AH0050	Clinical Laboratory Medicine and Radiology
51AH0060	Pharmacology
51AH0070	Crisis Intervention
51AH0080	Dietetics

Teaching   Lectures, seminars, classroom practice, clinical practice.

Assessment   Written test, independent assignments, active participation in teaching and clinical practice.

Literature   Topical literature.

The second module
MEDICAL NURSING   **10.5 ECTS credits (7 credits)**

Aims   The student
- learns to help patients with biopsychosocial problems caused by their illness and its treatment.
- learns to prepare patients for different examinations, operations and other procedures by observing and nursing them according to the known nursing principles.
- acquires the ability to guide and teach patients and their next of kin to cope with their illness and the treatment as well as to promote health and rehabilitation.
- is able to report on the nursing process both orally and in writing
- increases her/his knowledge in prevention of infections and learns to act according to the aseptic rules.
- takes advantage of the latest knowledge in the science of nursing.

Content   51AH0090   Nursing Strategies
51AH0100   Internal Medicine
51AH0110   Treatment of Skin Diseases
51AH0083   Anatomy and Physiology
512AH030   Medical Practice

Teaching   Lectures, classroom practice, seminars, individual/group assignments, independent work, clinical practice.

Assessment Written tests, assignments, clinical practice.

Literature Topical literature.

The third module:

SURGICAL AND PERIOPERATIVE NURSING
14.25 ECTS credits (9.5 credits)

Aims   The student
- becomes acquainted with the nature of perioperative nursing and forms an overall picture of the perioperative nursing process
  + see the aims above.

Content   51AH0120   Nursing Strategies
51AH0130   Surgery
51AH0140   Perioperative Nursing
51AH0150   Anaesthesiology
51AH0301   Surgical Practice
51AH0301   Perioperative Practice

Teaching   Lectures, seminars, classroom practice, clinical practice.

Assessment	Written tests, independent assignments, active participation in lectures and clinical practice.
Literature	Topical literature.

51VH0011	**Electives; theoretical studies**	**3 ECTS credits (2 credits)**

The fourth term
HEALTH PROMOTION   **18.75 ECTS credits**
(12.5 credits)

The first module:
THE BASIS OF HEALTH PROMOTION   **3 ECTS credits (2 credits)**

Aims	The student
	  · understands the close interaction between an individual´s health and the community, environment and society.
	  · knows different methods of health promotion and is able to use them.

Content	51AH0160 Health Education 51AH0295 Community Care 51PY0142 Social Policy
Teaching	Lectures, seminars, written and practical assignments.
Assessment	Written and practical assignments.
Literature	Topical literature.

The second module:
PROMOTION OF THE HEALTH OF CHILDREN
AND ADOLESCENTS   **4.5 ECTS credits (3 credits)**

Aims	The student
	  · is aware of the progress, goals and methods of the health care of children and adolescents.
	  · knows the factors affecting on children's and adolescents´ development and health.
	  · is acquainted with the priorities of preventive health care and the most essential methods in the health care of children and adolescents.

Content	51AH0170 Health Care of Children and Adolescents 51AH0300 Practice in Child Health Clinics / Maternity Clinics, in School and Student Health Care
Teaching	Lectures, seminars, classroom practice, clinical practice.
Assessment	By agreement.
Literature	Topical literature.

The third module:
PROMOTION OF THE HEALTH OF ADULTS   6 ECTS credits (4 credits)

Aims   The student
- · is aware of the development, goals and methods in the health care of adults and in occupational health care.
- · is acquainted with the key aspects of the preventive health care and with the occupational health care fixed by law.
- · is familiar with the examinations and treatments during pregnancy, childbirth and childbed.
- · is aware of the role of maternity care in the health care system.

Content   51AH0180   Health Care of Adults
              51AH0190   Maternity Health Care and Obstetrics
              51AH0300   Practice in Occupational Health Care

Teaching Lectures and classroom practice, clinical practice.

Assessment Written assignments or tests, clinical practice.

Literature Topical literature.

The fourth module:
PROMOTION OF THE HEALTH OF OLDER ADULTS
AND DISTRICT NURSING   5.25 ECTS credits (3.4 credits)

Aims   The student
- · becomes familiar with gerontological care and is aware of the factors affecting on the older adults´ health.
- · becomes familiar with the organisation of public health care.
- · is aware of the normal signs and changes and knows the theories of aging.

Content   51AH0200   Gerontological Care
              51AH0210   Geriatrics
              51AH0220   Treatment of Eye Diseases
              51AH0300   Practice in Home Nursing

Teaching Lectures, practical assignment, clinical practice.

Assessment Written tests or assignments, clinical practice.

Literature Topical literature.

The fifth module:
BACHELOR´S THESIS   3 ECTS credits (2 credits)

Aims   The student
- · is familiar with the goals and principles of nursing research.
- · acquaints him/herself with her/his field of research.

- knows the stages of the quantitative research process and alternative solutions made during the process.
- is able to make good use of scientific publications.
- adopts the ethics of nursing research.
- knows the basic concepts of statistics and can use tables and figures when presenting the findings of research.

Content   51OH0010   Nursing Research
                51PY0190   Mathematics and Statistics

Teaching   Lectures, independent work, assignments.

Assessment Written test, written report on the analysis of research done by the student.

Literature   Topical literature.

51VH0012	**Electives; theoretical studies**	**3 ECTS credits (2 credits)**
51VH0021	**Electives; practice**	**4.5 ECTS credits (3 credits)**

The fifth term
The first module
PEDIATRIC NURSING   **7.5 ECTS credits (5 credits)**

Aims   The student
- acquires a basic knowledge of childhood illnesses and hereditary diseases and their effects on a child.
- recognizes the special features in pediatric nursing.
- is able to help and support an ill child and her/his family in critical situations.

Content   51AH0230   Nursing Strategies
                51AH0240   Pediatrics
                51AH0250   Treatment of Ear Diseases
                51AH0300   Practice in the Pediatric Ward

Teaching   Lectures, classroom practice, study visits, independent studies, clinical practice.

Assessment Written tests/assignments, clinical practice.

Literature   Topical literature.

The second module
MATERNITY AND GYNAECOLOGICAL NURSING **6.75 ECTS credits (4.5 credits)**

Aims   The student
- gets a basic knowledge of the most common gynaecological diseases, their symptoms, examinations, treatments and prevention.
- understands the special features of gynaecological nursing and is able to take care of a patient.
- deepens her/his knowledge of maternity nursing and acquires the readiness to support families with a disabled child.

Content	51AH0260	Nursing Strategies
	51AH0270	Gynaecology
	51AH0300	Practice in the Maternity / Gynaecological Ward

Teaching Lectures, classroom practice, independent studies, clinical practice.

Assessment Written test/assignment, clinical practice.

Literature Topical literature.

The third module
PSYCHIATRIC NURSING   9 ECTS credits(6 credits)

Aims The student
- understands the significance of mental health as a resource for an individual and a community.
- is able to consider mental health and mental health disorders holistically.
- gets an overall picture of psychiatric helping methods and the psychiatric organisation and service system.
- is aware of preventive, caring and rehabilitative psychiatric nursing on the individual and community level.
- develops her/his own self-knowledge and understands the significance of counselling.

Content	51AH0280	Nursing Strategies
	51AH0290	Psychiatry
	51PH0113	Clinical Psychology
	51AH0300	Psychiatric Practice

Teaching Lectures, study visits, independent studies, individual/group assignments, clinical practice.

Assessment Written tests / assignments, practice.

Literature Topical literature.

The fourth module
BACHELOR´S THEHIS   3 ECTS credits(2 credits)

Aims The student
- deepens her/his scientific thinking and understands the significance of nursing research in the development of nursing practice, education and administration
- knows the stages of qualitative research and the alternative solutions made during the research process.
- can use the statistical programme (SPSS) when analyzing the data.

Content	51OH0021	Nursing Research
	51AH0022	Statistics
		Project work

Teaching	Lectures, seminars, independent studies.
Assessment	Practical and written test, assignment, active participating in teaching.
Literature	Topical literature.

51VH0013   Electives; theoretical studies   3 ECTS credits (2 credits)

ALTERNATIVE ADVANCED STUDIES   42 ECTS credits (28 credits)

MEDICAL- SURGICAL NURSING
The sixth term

The first module
NURSING METHODS   6.75/4.5

Aims	The student
	· deepens and extends her/his knowledge of medical-surgical nursing, integrating the knowledge base of other sciences.
	· understands the significance of cultural values in nursing.

Content	51SH0010	Holistic Medical-Surgical Nursing
	51SH0030	Ethics
	51AH0410	Surgery
	51AH0400	Internal Medicine

Teaching	Lectures, seminars, individual assignments, classroom practice, clinical practice.
Assessment	Written or practical tests, assignments, active participating in teaching, clinical practice.
Literature	Topical literature.

The second module
CRITICALLY ILL PATIENT   3 ECTS credits (2 credits)

Aims	The student
	· becomes acquainted with the methods of helping critically ill patients of different ages.
	· is able to guide, advise and support patients and their families both in an accident and emergency department and in an outpatient department.

Content	51SH000	Special Features and Helping Methods
	51SH0420	Clinical Psychology
	51AH0430	Anatomy and Physiology

Teaching	Lectures, independent work, seminars, classroom practice, clinical practice.
Assessment	Written tests, active participating in teaching, clinical practice.
Literature	Topical literature.

51OH0050   PRACTICE   **10 ECTS credits (7 credits)**

BACHELOR´S THESIS   **4.5 ECTS credits (3 credits)**

Aims   The student
      · becomes familiar with scientific writing.
      · is able to utilise guidance in different ways during the process of his/her
        bachelor´s thesis.
      · understands the significance of nursing research from the point of view of
        the development   of nursing.

Content   51OH0031   Scientific Writing
      51OH0032   Research Plan
      51OH0033   Independent Work (guidance available)

Teaching   Lectures, seminars, independent work.

Assessment Active participating in lectures, presentation of research plan.

Literature Topical literature.

51VH0014   Electives; theoretical studies   3 ECTS credits (2 credits)
51VH0022   Electives; practice   1.5 ECTS credits (1 credits)

The seventh term
The first module

NURSING EXPERTISE AND ADMINISTRATION
                                       7.5 ECTS credits (5 credits)

Aims   The student
      · forms an overall picture of her/his profession and adopts a positive approach
        to nursing development.
      · is able to plan, carry out, develop and evaluate the nursing process holistically.
      · knows, what economic activity in health care means
      · is willing to develop herself/himself and her/his profession.
      · gets an overall picture of nursing administration and understands that
        administrative activity is a part of a patient´s holistic care.

Content   51AH0440   Nursing Administration and Work Management
      51SH0060   Nursing Expertise
      51AH0450   Health Care Economics and Entrepreneurship
      51AH0460   Counselling and Consultation

Teaching   Lectures, independent work, seminars, clinical practice.

Assessment Written tests, active participation in teaching, clinical practice.

Literature Topical literature.

The second module
NURSING IN INTERNATIONAL CONTEXT

                             3.75 ECTS credits (2.5 credits)

Aims	The student · is able to carry out nursing in an international context as well in Finland as abroad.
Content	51SY0020 Multicultural Nursing 51PH0052 Swedish 51PH0062 English
Teaching	Lectures, exercises, workshops, independent assignments.
Assessment	Written and oral tests, independent assignments.
Literature	Topical literature.

51SH0070   PRACTICE   **10.5 ECTS credits (7 credits)**

BACHELOR´S THESIS   **6 ECTS credits (4 credits)**

Aims	The student · is able to work persistently. · evaluates her/his own and others´ work with criticism. · is capable of reporting on her/his bachelor´s thesis in a presentational diagram or in an article.
Content	51OH0041 Independent Work (guidance available) 51OH0042 Seminars 51OH0043 Proficiency Test
Teaching	Independent working, seminars.
Assessment	Grade for the bachelor´s thesis, proficiency test.

51VH0015   Electives; theoretical studies   **3 ECTS credits (2 credits)**
51VH0022   Electives; practice   **1.5 ECTS credits (1 credit)**

PERIOPERATIVE   NURSING
The sixth term

The first module
PERIOPERATIVE NURSING   **5.25 ECTS credits (3.5 credits)**

Aims	The student · deepens her/his knowledge of asepsis and prevention of infections. · is able to safely use the nursing and observation equipments needed. · is capable of reporting as well orally as in written form and has mastered the use of ADP.

· extends her/his knowledge of surgical and anaesthesiological nursing and is prepared to react to sudden changes in patients´ needs.

Content	51SH0100	Nursing Strategies
	51AH0500	Hospital Hygiene and Asepsis
	51AH0510	Surgery
	51AH0520	Anaesthesiology

Teaching   Lectures, classroom practice, independent studies, seminars, study visits, clinical practice.

Assessment Tests, assignment, active participating in seminars, clinical practice.

Literature   Topical literature.

The second module
CRITICALLY ILL PATIENT   **4.5 ECTS credits (3 credits)**

Aim   The student
· acquaints him/herself with the immediate medical care of patients with acute illnesses or patients who have met with an accident.
· is able to cope with unexpected situations and knows her/his duties under unusual conditions.
· learns to deal with a patient both in an accident and emergency department and in an outpatient department and acquaints him/herself with the nursing methods in use.
· acquaints him/herself with the nursing methods and nursing technology in intensive care.
· forms an overall picture of the nursing process in intensive care and learns to nurse critically ill patients.
· understands the importance of the support of an intensive care patient and her/his family and helps them in crisis situations.
· knows the special demands for asepsis in intensive care.

Content	51SH0120	Immediate Medical Care
	51SH0130	Outpatient Treatment
	51SH0140	Intensive Care
	51AH0530	Anatomy and Physiology
	51AH0540	Clinical Psychology

Teaching   Lectures, classroom practice, independent assignment, clinical practice.

Assessment Written/practical tests, independent assignment, clinical practice.

Literature   Topical literature.

51SH0150	**PRACTICE**		**10.5 ECTS credits (7 credits)**
51OH0030	**BACHELOR´S THESIS**		**4.5 ECTS credits (3 credits)**

Aims   The student
- becomes familiar with scientific writing.
- is able to utilise guidance in different ways during the process of writing the bachelor´s thesis.
- understands the significance of nursing research from the point of view of the development of nursing.

Content   51OH0031   Scientific Writing
51OH0032   Research Plan
51OH0033   Independent Work (guidance available)

Teaching   Lectures, seminars, independent work.

Assessment Active participating in teaching, presentation of research plan.

Literature   Topical literature.

51VH0014	**Electives; theoretical studies**	**3 ECTS credits (2 credits)**
51VH0022	**Electives; practice**	**1.5 ECTS credits (1 credit)**

The seventh term
The first module
NURSING DEVELOPMENT AND ADMINISTRATION
IN PERIOPERATIVE NURSING   **7.5 ECST credits (5 credits)**

Aims   The student
- becomes more competent to assess, plan, deliver and evaluate perioperative nursing taking into account patients´/ their families´ needs and the crucial nursing principles.
- is aware of the principles of pain therapy and has mastered the helping methods in pain therapy.
- develops her/his readiness to work in a multi-professional team and develops self-evaluation in perioperative nursing.
- is aware of the health and social care organisation in Finland.
- is able to participate in the development of the staff and work unit.

Content   51AH0550   Administration and Work Management
51SH0160   Expertise in Perioperative Nursing
51AH0560   Health Care Economics and Entrepreneurship
51AH0570   Counselling and Consultation

Teaching   Lectures, independent working, seminars, study visits, clinical practice.

Assessment Tests, independent assignment, active participating in seminars, clinical practice.

Literature   Topical literature.

The second module
NURSING IN INTERNATIONAL CONTEXT

3.75 ECTS credits (2.5 credits)

Aims   The student
  · is able to carry out nursing in an international context as well in Finland as abroad.

Content   51SY0020   Multicultural Nursing
              51PH0052   Swedish
              51PH0062   English

Teaching Lectures, independent assignments, workshops.

Assessment Written and oral tests, assignments.

Literature Topical literature.

51SH0170   PRACTICE   **10.5 ECTS credits (7 credits)**

BACHELOR´S THESIS   **6 ECTS credits (4 credits)**

Aims   The student
  · is able to work persistently.
  ·· evaluates her/his own and others´ work with criticism.
  · is capable of reporting on her/his bachelor´s thesis in a presentational diagram or in an arcticle.

Content   51OH0041   Independent Work (guidance available)
              51OH0042   Seminars
              51OH0042   Poster
              51OH0042   Summary in English
              51OH0043   Proficiency Test

Teaching Independent working, seminars.

Assessment Grade for the bachelor´s thesis, proficiency test.

51VH0015   Electives; theoretical studies   **3 ECTS credits (2 credits)**
51VH0022   Electives; practice   **1.5 ECTS credits (1 credit)**

PSYCHIATRIC NURSING
The sixth term

The first module
HOLISTIC PSYCHIATRIC NURSING
ON COMMUNITY LEVEL   **6.75 ECTS credits (4.5 credits)**

Aims   The student
- forms an overall picture of her/his profession, its history and development, theoretical background and ethical questions.
- is able to work as an expert in psychiatric nursing maintaining, promoting and rehabilitating the mental health of people of various ages as well on community level as on family level.

Content   51SH0200   Psychodynamic Helping Methods
51AH0600   Psychiatry
51SH0210   Ethics

Teaching   Lectures, study visits, independent working, clinical practice.
Assessment   Test/assignment, clinical practice.

Literature   Topical literature.

The second module
CLIENT/PATIENT-CENTRED HOLISTIC NURSING
3 ECTS credits (2 credits)

Aims   The student
- masters the nursing methods in mental health care so that she/he is able to carry out systematic, creative and high-quality psychiatric nursing taking into account the psychodynamic nature of the human mind and therapeutic relationship.

Content   51SH0230   Psychodynamic Nurse - Patient Relationship
51AH0610   Clinical Psychology
51AH0620   Anatomy and Physiology

Teaching   Lectures, independent working, personal nurse-patient relationship, clinical practice.

Assessment   Tests / assignments, clinical practice.

Literature   Topical literature.

51SH0240   PRACTICE   **10.5 ECTS credits (7 credits)**

BACHELOR´S THESIS   **4.5 ECTS credits (3 credits)**

Aims   The student
  · becomes familiar with scientific writing .
  · is able to utilise guidance in different ways during the process of writing of
    bachelor´s thesis.
  · understands the significance of nursing research from the point of view of
    the development of nursing.

Content   51OH0031   Scientific Writing
               51OH0032   Research Plan
               51OH0033   Independent Work (guidance available)

Teaching   Lectures, seminars, independent work.

Assessment Active participating in lectures, presentation of research plan.

Literature Topical literature.

51VH0014   Electives; theoretical studies   3 ECTS credits (2 credits)
51VH0022   Electives; practice   1.5 ECTS credits (1 credits)

The seventh term
The first module
NURSING DEVELOPMENT AND ADMINISTRATION
IN PSYCHIATRIC NURSING   **7.5 ECTS credits (5 credits)**

Aims   The student
  · gets a overall picture of nursing administration and understands that the
    administrative activity is a part of a patient´s holistic care.
  · nows what economic activity in health care means.
  · is aware of the social mission and the future challenges of mental health care
    and becomes interested in developing mental health services to meet people´s
    needs.

Content   51AH0630   Administration and Work Management
               51AH0640   Health Care Economics
               51SH0250   Expertise in Psychiatric Nursing
               51AH0650   Counselling and Consultation

Teaching   Lectures, independent assignments, study visits, clinical practice.

Assessment Test / assignment, clinical practice.

Literature Topical literature.

The second module
NURSING IN INTERNATIONAL CONTEXT

3.75 ECTS credits (2.5 credits)

Aims   The student
      · is able to carry out nursing in an international context as well in Finland as abroad.

Content   51SY0020   Multicultural Nursing
      51PH0052   Swedish
      51PH0062   English

Teaching Lectures, exercises, workshops, independent assignments.

Assessment Written and oral tests and assignments.

Literature Topical literature.

51SH0260   PRACTICE   **10.5 ECTS credits (7 credits)**

BACHELOR´S THESIS   **6 ECTS credits (4 credits)**

Aims   The student
      · is able to work persistently.
      · evaluates her/his own and others´ work with criticicsm.
      · is capable to report on her/his bachelor´s thesis in a presentational diagram or in an article.

Content   51OH0041   Independent Work (guidance available)
      51OH0042   Seminars
      51OH0042   Poster
      51OH0042   Summary in English
      51OH0043   Proficiency Test

Teaching Independent working, seminars.

Assessment Grade for the bachelor´s thesis, proficiency test.

51VH0015   Electives; theoretical studies   **3 ECTS credits (2 credits)**
51VH0022   Electives; practice   **1.5 ECTS credits (1 credits)**

HEALTH VISITING
The sixth term

The first module
NINE MONTHS´ JOURNEY   **4.5 ECTS credits (3 credits)**

Aims   The student
      · is able to carry out systematic and goal-directed prenatal nursing and understands the significance of multi-professional teamwork.

Content	51SH0300	Prenatal Nursing
	51AH0700	Obstetrics
	51AH0710	Anatomy and Physiology

Teaching   Lectures, workshops, classroom practice, independent studies, clinical practice.

Assessment   Written/practical tests, assignments, clinical practice.

Literature   Topical literature.

The second module
CHILDREN AND ADOLESCENTS   **4.5 ECTS credits (3 credits)**

Aims   The student
   · becomes acquainted with the systematic, family-orientated and holistic
      health care and nursing of children and adolescents with emphasis on
      health promotion, preventive care and early diagnosis.
   · knows the factors affecting on childrens´ and adolescents´ ideas on health.

Content	51SH0310	Pediatric Nursing
	51AH0730	Health care of Children
	51AH0720	Health Care of Adolescents
	51AH0740	Clinical Psychology

Teaching   Lectures, seminars, workshops, independent studies, clinical practice.

Assessment   Written tests, assignments, clinical practice.

Literature   Topical literature.

| **51SH0330**   **PRACTICE** | **10.5 ECTS credits (7 credits)** |
| **51OH0030**   **BACHELOR´S THESIS** | **4.5 ECTS credits (3 credits)** |

Aims   The student
   · becomes familiar with scientific writing.
   · is able to utilise guidance in different ways during the process of writing the
      bachelor´s thesis.
   · understands the significance of nursing research from the nursing
      development´s point of view.

Content	51OH0031	Scientific Writing
	51OH0032	Research Plan
	51OH0033	Independent Work (guidance available)

Teaching   Lectures, seminars, independent work.

Assessment   Active participating in lectures, presentation of research plan.

Literature   Topical literature.

| 51VH0014 | Electives; theoretical studies | 3 ECTS credits (2 credits) |
| 51VH0022 | Electives; practice | 1.5 ECTS credits (1 credit) |

The seventh term
The first module
ADULTS   **3.75 ECTS credits (2.5 credits)**

Aims   The student
- knows the crucial areas of emphasis in occupational health care and its role in the health care of adults.
- delivers occupational health care fixed by law.
- is aware of the most common occupational diseases.

Content   51SH0340   Health Care of Adults
                51AH0750   Occupational Diseases

Teaching   Lectures, workshops, independent studies, clinical practice.

Assessment Test, assignment, clinical practice.

Literature Topical literature.

The second module
HEALTH CARE OF OLDER ADULTS
AND DISTRICT NURSING   **1.5 ECTS credits (1 credit)**

Aims   The student
- is able to support older adults to maintain the quality of life and to keep up the activities of life.
- is capable of carrying out the high-quality holistic care of clients in public health care and district nursing as a member of a multi-professional team.
- becomes familiar with the work ofthe public health nurse in health care of older adults and in home care.

Content   51AH0760   The Health Care of Older Adults
                51AH0770   District Nursing

Teaching   Lectures, seminars, classroom practice, independent studies, clinical practice.

Assessment Written test or assignment, clinical practice.

Literature Topical literature.

The third module
DEVELOPMENT OF PUBLIC HEALTH CARE

3 ECTS credits (2 credits)

Aims   The student
  · forms an overall picture of the work of a public health nurse.
  · wants to develop public health care.
  · is responsible for developing herself/himself and her/his professional skills on the national and international level.

Content   51AH0780   Administration and Work Management
                51AH0790   Health Care Economics and Entrepreneurship
                51AH0795   Counselling

Teaching   Lectures, seminars, independent studies, clinical practice.

Assessment Written tests, active participating in teaching, clinical practice.

Literature   Topical literature.

The fourth module
NURSING IN INTERNATONAL CONTEXT

3.75 ECTS credits (2.5 credits)

Aims   The student
  · is able to carry out nursing in an international context as well in Finland as abroad.
Content

    51SY0020   Multicultural Nursing
    51PH0052   Swedish
    51PH0062   English

Teaching   Lectures, exercises, workshops, independent assignments.

Assessment Written and oral tests and assignments.

Literature   Topical literature.

51SH0350   PRACTICE   **10.5 ECTS credits (7 credits)**

BACHELOR´S THESIS   **6 ECTS credits (4 credits)**

Aims   The student
  · is able to work persistently.
  · evaluates her/his own and others´ work with criticism.
  · is capable of reporting on her/his bachelor´s thesis in a presentational diagram or in an article.

Content   51OH0041   Independent Work (guidance available)
              51OH0042   Seminars
              51OH0042 Poster
              51OH0042 Summary in English
              51OH0043   Proficiency Test

Teaching   Independent working, seminars.

Assessment Grade for the bachelor´s thesis, proficiency test.

51VH0015   Electives; theoretical studies   **3 ECTS credits (2 credits)**
51VH0022   Electives; practice   **1.5 ECTS credits (1 credit)**

TOTAL   210 ECTS CREDITS/140 FINNISH CREDITS

Degree Programme in Social Education and Social Care

The training programme produces professionals in the social and health fields with a polytechnical degree. The scope of the studies is 210 credits according to the ECTS standard. These studies take place during a period of 3.5 years. The student may continue his/her studies after this period for one year without any special application. **The language of instruction is Finnish.**

The training within the social field aims at a professional expertise that includes:

· A flexible and broad know-how with an ability to develop the social field and one's own work.
· Skills pertaining to client work.
· Functional and management skills in the working community.
· Developing and research proficiency.

The training programme prepares experts in the social field for client work and social services as well as other development services to society. These experts will be employed by the public administration, by various communities, by organisations and by the private sector.

The training programme consists of the following main elements:

· Basic studies (55.5 ECTS credits/37 credits).
· Professional studies (139.5 ECTS credits/93 credits).
· Elective studies (15 ECTS credits/10 credits.)

The training programme offers the students a chance to either get broadly acquainted with the various working areas of the social field, or, according to their choice, deepen their knowledge in some special-area of the field. The studies emphasise initiative, self-monitoring and cooperation skills essential to the present-day professional needs. There is also cooperation, through various projects, with the actual working life in the region. With the guidance of their tutors and teachers, students make their choices of studies while reaching for a professional competence that matches their own goals, capabilities and interests.

Capabilities for 'learning to learn' as well as abilities for self-evaluation and the evaluation of one's work are considered basic skills in the ever-changing working conditions of the social field. In addition to performing one's work, the training programme stresses the developing of the social field itself as well as viewing the work and the working community/organisation from the point of view of management and leadership.

Unit coordinator for ECTS:
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Note: all the information given here is preliminary and should be checked by the education unit.

Code	Course	1st year		2nd year		3rd year		
		ECTS		ECTS		ECTS		
		autumn	spring	autumn	spring	autumn	spring	au
411000	**BASIC STUDIES**							
411100	**Orientation for Polytechnical Studies**							
411110	Studying in the Polytechnic	1,5						
411120	Learning how to learn	1,5						
411200	**Languages and Communication**							
411210	Finnish language and communication	1,5	1,5					
411220	Swedish language			1,5	1,5			
411230	First foreign language	1,5	1,5					
411240	Information tecnology	1,5			1,5			
411300	**Humanity and Society**							
411310	Philosophy	3,0						
411320	Psychology, social psychology, education, and interaction skills	4,5						
411330	Sociology and social policy	4,5						
411340	An exploration into humanity, nature and the environment	1,5		3,0				
411400	**Professional Activity in the Social Field**							
411410	Fundamentals of professional activity in social care and the social field	3,0						
411420	Client work in the social field	6,0						
411500	**Practical Studies**							
411510	Practical training		13,5					
411520	Professional analysis		1,5					
412000	**PROFESSIONAL STUDIES**							
412100	**Research**							
412110	Fundamentals of reseach activity				1,5	3,0		
412120	Bachelor's thesis						6,0	
412200	**Human Growth and Development**							
412210	Life span		4,5					
412220	Diversity in life span		6,0					
412300	**Organizational Activity and Management**							
412310	Activity of the working community				4,5			
412320	Organizational structure and norms regulating the activity				3,0			
412330	Management and development of the organization				3,0	3,0		
412400	**Practical Studies**							
412410	Practical training					13,5		
412420	Professional analysis					1,5		
412500	**Change and Service Development**							
412510	The crisis of the welfare state			3,0				
412520	Developing services						4,5	
412530	The future of society and work							
412600	**Theory of Practice of Professional Activity in Social Work**							
412610	The "social" in outlining the professional activity of the field			1,5				
412620	The content and methods of professional activity		1,5	3,0				
412630	Professional ethics						1,5	
412700	**Special Areas in the Social Field**							
412710	Working with children and youth			3,0				
412720	Working with the aged			3,0				
412730	Working with the disabled and rehabilitation			3,0				
412740	Community and basic security work			3,0				
412750	Mental health and crisis work				3,0			
412760	Multicultural work				3,0			
412770	Working with intoxicant abusers				3,0			
412800	**Specializing Professional Studies**					9,0	15,0	
412810	Working with children and youth							

411000   BASIC STUDIES 55.5 ECTS CREDITS (37 credits)

Aims   The aim of basic studies is to enhance learning abilities, to instill the idea of self monitoring and explorative learning, and to orient the participant towards the social field by studying and analysing oneself as a human being, and the human being as a social actor.

411100   Orientation for Polytechnical Studies 3 ECTS credits (2 Finnish credits)

Aims   Orientation for polytechnical studies, the training programme and the social field; the student is acquainted with the self-monitoring mode of studying and learns goal-oriented working as well as independent and cooperative modes of working.

Content   411110 Studying in the polytechnic   **1.5 ECTS credits (1credits)**
               411120 Learning how to learn   **1.5 ECTS credits (1 credits)**

Teaching   Contact teaching, group work, independent work; keeping a learning diary.

Assessment Passed/failed.

Literature As agreed between student and teacher.

411200   Languages and Communication   12 ECTS credits (8 credits)

Aims   The polytechnical language and communication studies build up and support learning capabilities and are an essential element of the professional competence; study periods are integrated and expanded into other studies; later, during the elective studies, it is possible to further develop and deepen the language and communication studies.

Content   411210 Finnish language and communication   **3 ECTS credits (2 credits)**
               411220 Swedish language   **3 ECTS credits (2 credits)**
               411230 First foreign language   **3 ECTS credits (2 credits)**
               411240 Information technology   **3 ECTS credits (2 credits)**

Teaching   Contact teaching, independent work; exams, tasks.

Assessment 1-5.

Literature As agreed between student and teacher.

411300   Humanity and Society   16.5 ECTS credits (11 credits)

Aims   The student becomes aware that the social field is based on the levels of the individual, the community, and the society, and acknowledges the connections between these levels; the student learns the basic concepts in the fields of philosophy, psychology, socaial psychology, education, sociology, social policy, nutrition and

health care; the student becomes acquainted with the way these fields approach and view reality, and learns to see how human activity can be viewed through different sciences.

Content	411310 Philosophy	**3 ECTS credits (2 credits)**
	411320 Psychology, social psychology, education, and interaction skills	**4.5 ECTS credits (3 credits)**
	411330 Sociology and social policy	**4.5 ECTS credits(3 credits)**
	411340 An exploration into humanity, nature and the environment	**3 ECTS credits (2 credits)**

Teaching Contact teaching, activity in small groups, independent work; exams, tasks.

Assessment 1-5.

Literature As agreed between student and teacher.

411400	**Professional Activity in the Social Field**	**9 ECTS credits (6 credits)**

Aims The student forms a basic conception of the tasks of social and health care and of the contents of professional activity in the social field, as well as developing basic skills for client work.

Content	411410 Fundamentals of professional activity in social care and the social field	**3 ECTS credits (2 credits)**
	411420 Client work in the social field	**6 ECTS credits (4 credits)**

Teaching Contact teaching, exercises, independent work; exams, tasks.

Assessment 1-5.

Preceding studies: Sociology and social policy.

411500	**Practical Studies**	**15 ECTS credits(10 credits)**

Aims Getting acquainted with the professional activity of the social field; practising basic professional skills in client work; connecting professional skills with the theoretical knowledge of the field; evaluating one's own professional growth.

Content	411510 Practical training	**13.5 ECTS credits(9 credits)**
	411520 Professional analysis	**1.5 ECTS credits (1 credits)**

Teaching Practical working experience in a working unit in the social field or in a working project doing client work; an essay in a scientific format.

Assessment 1-5.

Literature As agreed between student and teacher.

Preceding studies: Passing the module Professional Activity in Social Field.

412000   **PROFESSIONAL STUDIES**   **139.5 ECTS CREDITS (93 credits)**

Aims   The purpose is for the student to explore and evaluate himself/herself, as a professional actor, and communities and social service systems as areas of professional activity within the social field -- developing one's way of action and one's work as well as the working communities and services.

412100   **Research**   **19.5 ECTS credits (13 credits)**

Aims   To acquire skills needed for writing a scientific essay; to learn acquisition of data and processing it through relevant methods; producing knowledge with the use of scientific methods; undertaking a personal thesis on a current issue/phenomenon issue/phenomenon in the social field -- the thesis must be reported in a written form and can also include audiovisual elements; developing general know-how of the research process.

Content   412110 Fundamentals of research activity   **4.5 ECTS credits (3 credits)**
                412120 Barchelor's thesis   **15 ECTS credits (10 credits)**

Teaching   Contact teaching, exercises, independent work; exams, quantitative and qualitative research on a topic within the social field.

Assessment 1-5 (the research product and the research process).

Literature As agreed between student and teacher.

412200   **Human Growth and Development**   **10.5 ECTS credits (7 credits)**

Aims   The student understands human growth and development as a single process of lifespan; the student learns about the physical, psychological and social aspects of growth in different ages, and learns to recognize the essential features of development in order to be able to work with people of different ages; the student gets acquainted with diversity/difference as part of growth and development, learns the laws of growth and development, and is capable of supporting individual growth in his/her work.

Content   412210 Life span   **4.5 ECTS credits (3 credits)**
                412220 Diversity in life span   **6 ECTS credits (4 credits)**

Teaching   Contact teaching, exercises, independent work; exams, tasks, project work.

Assessment 1-5.

Literature As agreed between student and teacher.

| 412300 | **Organisational Activity and Management** | **13.5 ECTS credits(9 credits)** |

Aims

- · The student expands his/her expertise in the social field from the individual approach of client work into working communities and organisations, recognising the societal connections of the various approaches within the professional field.
- · The student becomes aware of the factors affecting the activity and management of the working community and organisation, and is capable of evaluating and developing his/her activity as a responsible member and director of the working community.
- · The student learns the main forms of organising the work as well as the developing methods of the working community and organisation, and is capable of applying these skills to his/her professional field.
- · The student is capable of recognising the special features of the working environment of the organisations within the social field and the needs of the clients, and is able to take them into account while applying his/her knowledge within the working communities of, or as a director in, the social field.

Content 412310 Activity of the working community **4.5 ECTS credits (3 credits)**
412320 Organisational structure and norms
    regulating the activity **3 ECTS credits (2 credits)**
412330 Management and development
    of the organisation **6 ECTS credits (4 credits)**

Teaching Contact teaching, exercises, independent work; exams, tasks.

Assessment 1-5.

Literature As agreed between student and teacher.

| 412400 | **Practical Studies** | **15 ECTS credits (10 credits)** |

Aims The student deepens his/her professional skills by becoming acquainted practically, or through a work project, with the activity of a working community and organisation as well as management work and tasks; the student evaluates, on the basis of the studies and the working experience, his/her own professional skills and, as a member and director of the organisation, the working ability of the organisation and management.

Content 412410 Practical training **13.5 ECTS credits (9 credits)**
412420 Professional Analysis **1.5 ECTS credits (1 credits)**

Assessment 1-5.

Literature As agreed between student and teacher.

Preceding studies: Activity of the working community, fundamentals of management.

| **412500** | **Change and Service Development** | **10.5 ECTS credits (7 credits)** |

Aims   To study the economic, political, cultural and social predicament of Finnish society, especially as a welfare state, to analyse the service system and its activity, and to find grounds and means for the development of the services; to anticipate the future of Finnish society and work in a globalizing development; to develop spiritual, informational and skill capabilities for facing change.

Content

412510 The crisis of the welfare state	**3 ECTS credits (2 credits)**
412520 Developing services	**4.5 ECTS credits (3 credits)**
412530 The future of society and work	**3 ECTS credits (2 credits)**

Teaching   Contact teaching, exercises, independent work; exams, tasks.

Assessment 1-5.

Literature   As agreed between student and teacher.

| **412600** | **Theory and Practice of Professional Activity in Social Work** | **7.5 ECTS credits (5 credits)** |

Aims   The student further analyses the characteristics of professional activity and skills within the social field by deepening his/her understanding of the meaning of 'social', both conceptually and practically; the student deepens his/her expertise in the content of professional activity in the social field within the special areas of social work and social pedagogy; the student understands the methodical approach of the social field and learns the main methods; the student develops his/her professional reflectivity by personally meditating on the relationship between the professional theory and practice and by grasping the professional ethics as part of his/her activity.

Content

412610 The 'social' in outlining the professional activity of the field	**1.5 ECTS credits (1 credits)**
412620 The content and methods of professional activity	**4.5 ECTS credits (3 credits)**
412630 Professional ethics	**1.5 ECTS credits (1 credits)**

Teaching   Contact teaching, exercises, independent work; exams, tasks.

Assessment 1-5.

Literature   As agreed between student and teacher.

| **412700** | **Special Areas in the Social Field** | **21 ECTS credits (14 credits)** |

Aims   To get acquainted with the various working areas of the social field.

Content

412710 Working with children and youth	**3 ECTS credits (2credits)**
412720 Working with the aged	**3 ECTS credits (2 credits)**
412730 Working with the disabled and rehabilitation	**3 ECTS credits (2 credits)**
412740 Community and basic security work	**3 ECTS credits (2 credits)**

Social Education and Social Care

412750 Mental health and crisis work	**3 ECTS credits (2 credits)**
412760 Multicultural work	**3 ECTS credits (2 credits)**
412770 Working with intoxicant abusers	**3 ECTS credits (2 credits)**

Teaching   Contact teaching, independent work; exams, tasks.

Assessment   1-5.

Literature   As agreed between student and teacher.

Preceding studies: Human growth and development, professional activity in social work.

412800   **Specialising Professional Studies**   **18+9 ECTS credits (12+6 credits)**

After the compulsory professional studies (14 credits) the student chooses one of the four specialising options: working with children and youth, working with the aged, working with the disabled and rehabilitation, community and basic security work; of one of these the student will complete a total of 12 credits; in addition to these main specialising studies, the student can choose 6 credits to be completed either in (a) one of these three: mental health and crisis work, multicultural work, working with intoxicant abusers (b) those courses within the optional studies that the student considers being supportive of his/her professional objectives.

Content

412810 Working with children and youth	**18 ECTS credits (12 credits)**
412820 Working with the aged	**18 ECTS credits (12 credits)**
412830 Working with the disabled and rehabilitation	**18 ECTS credits (12 credits)**
412840 Community and basic security work	**18 ECTS credits (12 credits)**

412850 Mental health and crisis work	**9 ECTS credits (6 credits)**
412860 Multicultural work	**9 ECTS credits (6 credits)**
412870 Working with intoxicant abusers	**9 ECTS credits (6 credits)**

412810   **Working with Children and Youth**   **18 ECTS credits (12 credits)**

Aims

- The student understands the position of the child, the young person and families with children within the Finnish culture and society.
- The student understands the prerequisites of the balanced development of the child and his/her own role in promoting it as well as in preventing problems.
- The student is well acquainted with various educational trends for early and special education and especially with the methods of guiding education and special education.
- The student has acquired abilities to examine and develop his/her educational thought and consciousness, is capable of applying his/her knowledge and skills in practical educational situations, and reviewing and developing working practices.

| | · | The student is well-acquainted with preemptive child protection work, understands the risks and problems associated with the jeopardization of the child's development and those factors in the family and the society that cause and sustain the problems. |
| | · | The student is acquainted with the goals, principles and aiding methods of child protection. |

Content
412811 Fundamentals of early education	**2.25 ECTS credits(1.5 credits)**
412812 Guiding education	**1.5 ECTS credits (1 credits)**
412813 Special education	**2.25 ECTS credits(1.5 credits)**
412814 Alternative pedagogical approaches	**1.5 ECTS credits (1 credits)**
412815 Children's and youth culture	**3 ECTS credits (2 credits)**
412816 Child protection	**4.5 ECTS credits (3 credits)**
412817 Special questions pertaining to working with children and young people	**3 ECTS credits (2 credits)**

Teaching Contact teaching, visits, expert to sites, expert visits, independent work; exams, tasks, projects.

Assessment 1-5.

Literature As agreed between student and teacher.

Preceding studies: 412710 Working with children and the youth, 3 ECTS credits (2 credits).

412820   **Working with the Aged**   **18 ECTS credits (12 credits)**

Aims

- · The student learns about aging as a societal, social and individual phenomenon.
- · The student learns the various forms and service systems of working with the aged.
- · The student receives information about the most common health problems and medication associated with aging.
- · The student gets acquainted with the planning, coordination, development and management of services for the aged.
- · The student gets acquainted with the special issues regarding working with the aged: mental work, treatment of a dying patient, social problems associated with aging.
- · The student gets familiarised with voluntary work for the aged and activities for stimulating the aged.

Content
412821 Research and policy concerning the aged	**3 ECTS credits (2 credits)**
412822 Special questions pertaining to geriatrics	**3 ECTS credits (2 credits)**
412823 Special questions pertaining to working with the aged	
	6 ECTS credits (4 credits)
412824 Developing the work with the aged	**6 ECTS credits (4 credits)**

Teaching Contact teaching, visits to sites, expert visits, independent work; exams, tasks, projects.

Assessment 1-5.

Literature As agreed between student and teacher.

Preceding studies: 412720 Working with the aged, 3 ECTS credits (2 credits)

412830 **Working with the Disabled and Rehabilitation**

18 ECTS credits (12 credits)

Aims

· The student improves his/her understanding of disability viewed in the lifespan of the individual, from the point of view of families and immediate communities, and as reflected in the structures of the society; the student deepens his/her view of disability and develops his skills to support the resources of the disabled and their families/immediate communities (networks) for coping with the daily life; the student works on his/her attitudes, views and feelings as part of professional growth and working skills with the disabled.

· The student acquires capabilities for psychosocial rehabilitation work in order to be able to work as part of a multiprofessional working team; in particular, the student develops his/her counselling and guiding skills.

· The student gets acquainted with individualised rehabilitation work, especially with the family and immediate community (network) approaches, and acquires capabilities to work in different types of small communities of the disabled; the student is capable of taking, in his/her action, into consideration the special challenges caused by various types of disabilities, and is capable of developing and making more versatile the working methods he/she has learned.

Content 412831 Rehabilitation methods   **6 ECTS credits (4 credits)**
412832 Supporting the growth of disabled children and youth
3 ECTS credits (2 credits)
412833 Health care of the disabled   **1.5 ECTS credits (1 credits)**
412834 Basic care of the seriously disabled
1.5 ECTS credits (1 credits)
412835 Mental problems and other special questions pertaining to the mentally
disabled   **1.5 ECTS credits (1 credits)**
412836 Developing the work with the disabled
4.5 ECTS credits (3 credits)

Teaching Contact teaching, visits to sites, expert visits, independent work; exams, tasks, projects.

Assessment 1-5.

Literature   As agreed between student and teacher.

Preceding studies: Human growth and development, 10.5 ECTS credits (7 credits), 412730 Working with the disabled and rehabilitation, 3 ECTS credits (2 credits).

412840   **Community and Basic Security Work**   **18 ECTS credits (12 credits)**

Aims

- · The student broadens the conceptual basis of his/her professional skills by learning about relationships and problems of work, livelihood and social participation and the social and individual change agents behind these.
- · The student conceptualises the new challenges raised by the new predicament of society and opportunities, to promote the resources of communities and individuals in the areas of employment, livelihood and social participation.
- · The student acquires functional and methodical skills to work with communities and individuals in their own working and social environment.

Content   412841 Changes in living habits and social problems **3 ECTS credits (2 credits)**
412842 New opportunities for communities **3 ECTS credits (2 credits)**
412843 Basic security **3 ECTS credits (2 credits)**
412844 Methods of social work and social pedagogy in enhancing the resources of the individual and the communities **4.5 ECTS credits (3 credits)**
412845 Developing community and basic security work
4.5 ECTS credits (3 credits)

Teaching   Contact teaching, exercises, independent work; exams, tasks, projects.

Assessment 1-5.

Literature   As agreed between student and teacher.

Preceding studies: 412740 Community and basic security work, 3 ECTS credits (2 credits).

412850   **Mental Health and Crisis Work**   **9 ECTS credits (6 credits)**

Aims   Capabilities to undertake mental health and crisis work; an ability to use the most common psychosocial working methods in guiding, counselling and supporting the client and his/her immediate community (network).

Content   412851 Preventive mental health work **3 ECTS credits (2 credits)**
412852 Treatment-oriented mental health work **1.5 ECTS credits (1 credits)**
412853 Rehabilitative mental health work **4.5 ECTS credits (3 credits)**

Teaching   Contact teaching, visits to sites, expert visits, independent work; exams, tasks, projects.

Assessment 1-5.

Literature   As agreed between student and teacher.

Preceding studies: 412750 Mental health and crisis work, 3 ECTS credits (2 credits).

| 412860 | **Multicultural Work** | **9 ECTS credits (6 credits)** |

Aims   Intellectual, attitudinal and practical ability to encounter, in one's work, representatives of different cultures, and an ability to understand the significance of cultural factors in interpreting human activity.

Content   412861 Cross-cultural interaction   **3 ECTS credits (2 credits)**
412862 Immigrants as an element of Finnish society
1.5 ECTS credits (1 credits)
412863 Multicultural work in the social field
4.5 ECTS credits (3 credits)

Teaching   Contact teaching, visits to sites, expert visits, independent work; exams, tasks, projects.

Assessment 1-5.

Literature As agreed between student and teacher.

Preceding studies: 412760 Multicultural work, 3 ECTS credits (2 credits).

| 413870 | **Working with Substance Abuse** | **9 ECTS credits (6 credits)** |

Aims   Capability to undertake intoxicant and narcotics work; an ability to use the most common psychosocial working methods in guiding, counselling and supporting the client and his/her immediate community (network).

Content   412871 How does substance addiction develop?   **1.5 ECTS credits (1 credits)**
412872 Diverse treatment ideologies and services;
rehabilitation and the law   **3 ECTS credits (2 credits)**
412873 Narcotic/intoxicant problems within the family
3 ECTS credits (2 credits)
412874 Youth and substance abuse   **1.5 ECTS credits (1 credits)**

Teaching   Contact teaching, visits to sites, expert visits, independent work; exams, tasks, projects.

Assessment 1-5.

Literature As agreed between student and teacher.
Preceding studies: 412770 Working with intoxicant abusers, 3 ECTS credits (2 credits).

| 412900 | **Practical Studies** | **15 ECTS credits (10 credits)** |

Aims   The methodical and substantial deepening and evaluation of professional skills on the basis of practical working experience towards the end of the studies.

Content   412910 Practical training   **13.5 ECTS credits (9 credits)**
412920 Professional analysis   **1.5 ECTS credits (1 credits)**

Teaching Working in a working unit in the social field or in a working project doing tasks that deepen the professional skills of the student; an essay in a scientific format.

Assessment 1-5.

Literature As agreed between student and teacher.

Preceding studies: Specialising professional studies.

413000 **ELECTIVE STUDIES** **15 ECTS CREDITS (10 credits)**

During the elective studies, the student can develop his/her expertise according to needs as well as interest. The student may choose elective studies both from the courses of the Unit of Social Education and Social Care and from the shared courses of the polytechnic. Elective courses are updated annually.

DEGREE PROGRAMME IN CULTURAL AND MEDIA STUDIES
Bachelor of Visual and Media Arts

Art and Media training is intended to produce qualified media experts (in TV, radio and multimedia) and visual artists (in media art, 2D graphics, animation, 3D, photography, multimedia and Web art). Upon graduation, media students qualify for the following professions: editor, Web artist, videographer, stage manager, TV cameraman, sound engineer, music producer, cinematographer, production manager, media graphics designer, TV lighting cameraman, director or assistant director, media designer etc. Education in visual artistry aims at providing skills and knowledge needed in visual professions, as well as in technical or artistic tasks involved in producing images with the use of the latest and most advanced information technology.

The degree programmes of Media and Visual Arts are organised every year in five eight-week-long periods so that the final amount of credits is 240 ECTS credits/160 credits. The duration of the studies is 4 years. The degree programmes comprise the following main elements: Basic Studies, Professional Studies, Advanced Studies, Elective Studies according to the students' choices and interests, Practical Training and Bachelor's Thesis. Several times the study groups are mixed and they also vary in size according to the aims of the particular training. The unit also annually offers some continuation studies in audiovisual journalism, animation, media management and other applied subjects.

Much emphasis is put on the practical and expressional skills and knowledge of arts and media. Methods vary from lessons to exercises, trips to examinations. Required reading consists partly of English and Swedish books. Groupwork is also an essential factor in production-based training which itself requires good social skills. Assessments are usually carried out differently for each course. The bachelor's thesis is an independent study based on a research plan approved by the unit. Additionally, one must also present an audiovisual product connected thematically with the thesis. Tutoring is organised by the lecturers.

In addition to the general admission requirements, the unit arranges an aptitude test, and an interview for the domestic applicants. Foreign students are asked to send their 1. Foreign Student application (special form) 2. Previous work (which has been requested) 3. Curriculum vitae and 4. Possible recommendations. For further details, contact the unit coordinator.

The language of instruction is Finnish. Some courses may be taught in English. Please inquire at the education unit for details of courses in English and for details of this year's deadlines. The application forms can be obtained from the education unit.

The Unit Coordinator for ECTS:
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Degree Programme in Media Studies	(240 ECTs credits/ 160 credits)	
	Credits	ECTS credits
Introduction to polytechnic studies	**16**	**24**
· Orientation Studies	2	
· Changing Society, Work Life and Ethics	2	
· Computer Science and ADP	3	
· Organisations, Interaction and Group Dynamics	(2)	(Combined with professional studies)
· Research and Philosophical Study of Humanity and Culture studies	(2)	(Combined with professional and thesis work)
· Communication and Interaction		
Finnish	3	
Swedish	3	
English	3	
Basic studies	**24**	**36**
· Basics for audiovisual working	8	
· Entrepreneurship and Rgulations	8	
· Radio-, TV- and New Media production project	8	
Professional studies	**32**	**48**
· TV Works	8	
· Radio Works	8	
· Media Contents and Contexts	8	
· Electronic Publishing	8	
Advanced studies (40+12+20)	**40**	**60**
· Media screenwriting	40	
Screenwriting Workshop I	8	
Screenwriting Workshop II	8	
Screenwriting Workshop III	8	
· Media Production (technically oriented)		
Sound I	8	
Lighting	8	
Shooting I	8	
Shooting II	8	
Arctic Work	8	
Documentary Production	8	
Directing and Production Project	8	
Commercial AV-Production	8	
Sound II	8	
Sound III	8	
Acoustic Music	8	
Radio I	8	
Radio II	8	
TV I	8	
TV II	8	

Film and Video Production	8		
· Media Producing, Marketing and Financing	40		
Budgeting and Schedules	8		
Media Research	8		
Private and Public Communication	8		
Motion Picture/Video	8		
Sound and music	8		
Graphics	8		
Multimedia	8		
Commercials (radio, TV, Net)	8		
Bachelor's thesis	**12**	**18**	
Practical training	**20**	**30**	
Elective studies (including other institutions)	**16**	**24**	

Course unit information

Introduction to polytechnic studies encompasses basic studies, professional studies and advanced studies. Special emphasis is put on the students´ ability to develop planning for work over a period of time and to keep systematic records of these plans, the ability to evaluate one´s own work and getting into appropriate cultural and social activities in the school environment. The scope of courses is also targeted to the geographic, cultural and social aspects of the Kemi-Tornio Region, Barents Region and international partnership areas.

Basic studies include an introduction to the theory and practice of audiovisual expression, technology, working concepts, legal and financial aspects of production and media ethics.

Professional studies offer the main core of general radio, TV and multimedia work and theory. During this period the students´ own interest areas are formulated and they decide about their further educational alternatives.

Advanced studies are divided into three optional course areas: media screenwriting, media production and media design for varied target groups. Studies in these thematic units require artistic talent and technological competence. The media products should be in themselves positive expressions of the student's values, social and environmental issues and personal commitment.

The exact starting point of an individual study course is known approximately six months beforehand. Teaching methods vary from lectures and exercises to essays and required reading of about 30 books. The institution also offers special courses in working under arctic conditions, underwater filming and regional cultural events.

Degree Programme in Visual Arts   **(240 ECTs credits/ 160 credits)**

	Credits	ECTS credits
Introduction to Polytechnic studies	**20**	**30**
· Orientation studies	2	
· Changing Society,Wworking Life and Ethics	2	
· Computer Science and ADP	3	
· Organisations, Interaction and Group Dynamics	2 (Combined with professional studies)	
· Research and Philosophical Study of Humanity and Culture	2 (Combined with professional studies and thesis work)	
· Communication and Interaction	9	
Finnish	3	
Swedish	3	
English	3	
Basic studies	**24**	**36**
· Foundations of Visual Arts		
· Foundations of Composition and Image Making		
· Foundations of Media		
Professional studies	**38**	**57**
· Pattern, form and space		
· Drawing and painting		
· Multimedia		
· Animation		
· Graphics		
· Art history, modern art and genres		
· Research in the arts		
Advanced studies	**32**	**48**
· 2D Graphics	8	
· 3D Presentation	8	
· Animation	8	
· Multimedia	8	
· Art and Net	8	
· Time, Space and Conceptual Art	8	
· Photography and Image Processing	8	
Bachelor's thesis and research	**12**	**15**
Practical training	**20**	**30**
Elective studies	**16**	**24**

Course unit information

The main objectives of the basic studies are to familiarise the student with methods of working and thinking in artistic pursuits. The courses include drawing, colour theory, composition theory, photography, applied graphics, figure drawing and plastic works. The students will be given an overview of computer-based work with images, sound, lights and the Web. The students will be introduced to exhibitions and other cultural events.

The professional studies will deepen the framework and scope of visual arts and computer graphics. The analytical skills concerning the production and reception of art are promoted. Additionally, the principles of animation are studied.

During the advanced study stage the students will be offered an extensive combination of theoretical information and practical studies to develop their personal abilities and expertise in a chosen area of artistic production: 2D, 3D, animation, photography and image processing, multimedia, Web art and time-space art.

Teaching methods include lectures, exercises, required reading and exhibitions. Usually art excursions are made to the Atlantic coast and neighbouring areas.

The exact starting point of an individual study course is known approximately six months beforehand. Some courses of the institution may be arranged in English. Please inquire at the education unit for details of courses in English.

8. NON-DEGREE PROGRAMMES

GATEWAY EDUCATION

The Unit of Technical Education in Kemi prepares technological experts for both domestic and international assignments. The unit is situated in the Technology Park among research laboratories, hi-tech companies and innovative SMEs. The number of students in engineering is about 800.

Gateway education is given in English and it will orientate you towards working and doing business in a multicultural environment. The education is aimed at students and professionals from other European countries, Russia and Finland. Qualification is a minimum of two years of study at college or a polytechnic-level institution and a good command of the English language. Accommodation is arranged by the unit.

Gateway prepares you to work in a multicultural environment; studying and running project work in an international group is your Gateway between cultures and nationalities. It is also your Gateway to Northern Europe. The programme gives you know-how in international trade, logistics and in working in a multicultural environment. You can also take courses from the degree programmes taught in English in engineering, business, data processing or health care or do the final thesis of your own institution with the guidance of our teachers.

The programme consists of:
Supporting studies: Computer Studies, Marketing
Working in cross-cultural environment: Meetings and negotiations, teamwork, organisation development
Languages: Finnish, English
International business studies: Foreign trade, international economics, entrepreneurship, logistics
Excursions to the North Calotte Area, expert lectures, project

Methods: Lectures, written exams, reports, excursions, project
Application deadline: 1st November 2000
Credits: 20 credits / 30 ECTS
Fees: None in Finland

Use the attached application form to apply to join the Gateway programme.

Contact:
Mr. Raimo Pyyny
The Unit of Technical Education
Kiveliönkatu 36,
FIN 94600 KEMI FINLAND
Tel. +358 16 258 809
Mobile phone +358 40 555 8065
E-mail: raimo.pyyny@tokem.fi

Organisation Development   **3 ECTS credits (2 Finnish credits)**

Content

Leading in various kinds of organisations.
Group and team leadership.
Learning organisation.
Development discussions.
Developing and researching work: organisation visions, mission, aims and goals.
Organisation communication.
Problem-solving in leading and development.

Teaching   Lectures and assignments which include a personal report on working and leading a working group and team.

Assessment Written test.
Participation in classroom work.

Teamwork   **1.5 ECTS credits (1 credit)**

Content   Differences between teams and working groups.
Team basics: size, skills, approach, accountability and commitment to common purpose and performance goals.
Teamwork skill requirements.
Communication skills, observing, listening, nonverbal communication.
Problem-solving discussion in a team.
Team performance development.
Leading a team.

Assessment Participation in classroom activities.

Intrapreneurship and International Organisations

1.5 ECTS credits (1 credit)

Aims   To familiarize the student to the idea and meaning, means and possibilities of intrapreneurship in general and also in international organisations.

Content   Background for the course, the essence of entrepreneurship (the meaning and purpose of entrepreneurship, cultural differences in entrepreneurship), the essence of intrapreneurship (the meaning and purpose of intrapreneurship, characteristics of an intrapreneur), the means for developing intrapreneurship in firms (empowering people, teamwork, other means possible), intrapreneurship in practice (examples from international firms).

Literature Will be announced later.

Assessment Assignments and research report.

Meetings and Negotiations   **1.5 ECTS credits (1 crerdit)**

Content   Negotiations

Examines the strategic and tactical issues of how to prepare and conduct negotiations. Special focus on the fundamental negotiating techniques including communication skills; body language, listening skills, the use of props, analyzing your opponent's strengths and weaknesses, as well as your own, and how to negotiate to win.

Meetings

Directed towards the goal of improving your skills in conducting meetings so as to ensure full and effective participation. Special focus on how to prepare for meetings, take minutes, chair meetings, qualities of a minute taker, leadership qualities, listening skills, tips on dealing with difficult people, handling tough situations and making meetings more interesting.

Assessment Final Examination.

Finnish and Living in Finland   **1.5 ECTS credits (1 credit)**

Content   Basic facts on Finland and Finnish.
Finland - a part of Europe, education system, industry, products from Finland, culture
Social policy and health care.
Phrases in social situations: greetings, introductions, etc.

Assessment

Written and oral test.
Participation in classroom work.

Foreign Trade   **4.5 ECTS credits (3 credit)**

Content   Facts about Finland´s foreign trade.
Reasons for going international.
Forms of internationalisation.
Foreign trade documents.
Terms of delivery.
Terms of payment.

Assessment Written test (open books).

International Economics   **1.5 ECTS credits (1 credit)**

Content   Project work (3 students in a group) includes:
Written paper (10-15 pages).
Oral presentation (30 minutes).

Topics of the Project Work

Finland - the Political and Economic Situation.
The European Monetary Union.
Unemployment in Europe - A Permanent Problem ?
Enlargement of the European Union.
Asian Crisis and its Impact on Northern European Countries.
Russia in Transition.
Trade Between Eastern European and the European Union.

Assessment   Written test.
Oral presentation.
Teamwork skills.

Logistics   **4.5 ECTS credits (3 credits)**

Content
- Forces of change in the role of logistics and purchasing.
- Framework of logistics.
- Purchasing process.
- Achieving an integrated supply chain.
- Identification of core business and outsourcing strategy.
- Levels in purchasing; vendor management, supply chain management and relationship management.
- Purchase portfolio.
- Inventory control and ABC analysis.
- Transport mode selection.
- Logistics and competitive strategy.
- Economic geography and structure of Barents region & North Calotte & Finland.
- Explanation of logistic exercise.
- Border crossing between east and west.
- Railroad transportation.
- Water transportation.
- Road transportation.
- Air transportation and energy.
- Telecommunication.
- Environmental aspects.
- City transportation.
- Exporting Finland.
  - Lines of business which service Northern Europe in Finland.
- Gateway Finland.
  - Transit traffic in Finland.
  - Finland as a marketing centre of Northern Europe.

Assessment Assignments.
Written tests.
Final exam.

Computer Studies, optional   1.5 ECTS credits (1credit)

Content Word processing.
Speadsheets.
Information searching and retrieval.
Communication via e-mail, Usenet News and IRC.

Assessment Test with computer.
Assignments with computer.

Marketing, optional   1.5 ECTS credits (1 credit)

Content The Contents and purpose of marketing.
Products, services and benefits.
The marketing environment.
The competitive environment.
Buyer behaviour.
Customers and market segmentation.
Product offering.

Assessment Exercises.
Written test.

English in English, optional   3 ECTS credits (1.5 credit)

Content Communication skills, written and oral.
English language as a business tool and cultural bridge.
Developmental skills exercises for students of English as a second language.
Vocabulary development and comprehension.

Teaching Lectures
Additional out-of-class assignments (grammar worksheets, essays, corporate communication skills exercises).
2hr final exam.

Assignments
· Classroom assignments and communication exercises.

Assessment Students are assessed based on their willingness to participate in classroom activities, attendance and overall enthusiasm; completion of homework, assignments, while actual progress is determined by students' individual levels of achievement and ability.

Finnish in English, optional   **3 ECTS credits (1.5 credit)**

Content   The Finnish way of life.
                 Characteristics of the Finnish language.
                 Phrases in social situations.
                 Service encounters; shopping, eating out, banking.
                 Communication; travelling, speaking on the phone.
                 Grammar; present tense, past tense, the most used cases, questions and answers,
                 singular and plural in the Finnish language.

Assessment   Written test.
                 Participation in classroom work.

CHINA AS A MARKET AREA

Aims

This programme aims to give students a thorough understanding of China as an area for different business operations. Students will be able to make critical evaluation of different opportunities. All methods and tools studied in the programme are suitable also for evaluation of other economic areas.

Outline

The course is divided into six modules. The first module provides the student with the necessary skills in information technology and research methods required in studies and in project work. Also, the main concepts of international accounting are introduced in the first module. The second module deals with language and cultural studies. At the third stage the main focus is on the concept of market area analysis with all its implications. The fourth module concentrates on global economy and international politics. The fifth module is studied at Shenzhen University in China and its main contents are Chinese culture and habits, China and foreign trade, economic reform in China and Finnish business and business opportunities in China. The last module consists of the student's project work, putting into practice the theory and skills acquired in the previous modules. All modules have focus especially on China.

Time: 4.9.2000 - 1.6.2001
Applications: The application forms can be obtained from the education unit and must be submitted by 16th June 2000 at the latest.
Credits: 40 credit units/60 ECTS credits.
Fees: For module 5 approx. 8000 FIM

Contact:
Mr. Sami Niemelä
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fax +358 15 258 297
E-mail: sami.niemela@tokem.fi

1. INTRODUCTION AND METHODOLOGY   12 ECTS credits (8 credits)

1.1. Introduction to Studies   3 ECTS credits (2 Finnish credits)

Aims   The student acquires a thorough knowledge of the Kemi-Tornio area as a studying environment. Student also becomes aware of both pedagogical and practical co contents of the programme. Students learn to know each othersand the teaching staff.

Content   Contents of the studies.
Team-working and communication skills.
Practical arrangements

Teaching   Lectures 32 hours.

Assessment None.

1.2. Managing Information   3 ECTS credits (2 credits)

Aims   To give students a basic understanding of and skills in information technology use in studies and the tourism business. To enable the students to use the Internet as a tool in business.

Content   Desktop tools: Word processing, spreadsheets and presentation applications. Network services and Internet: use of e-mail and World Wide Web; information search, information providing systems, electronic business.

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment   Continous assessment and assignment 50 %, test in computing skills 50 %

Literature   Will be submitted during the lessons.

1.3. Research Methods   3 ECTS credits (2 credits)

Aims   To enable students to acquire the necessary skills to conduct reliable research in the area of business and economics.

Content   Qualitative methods, Quantitative methods, Statistics.

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment Assignments 75 %, project work 25 %.

1.4. International Accounting   **3 ECTS credits (2 credits)**

Aims   To introduce students to the problems of international accounting and reporting.

Content   International diversity in financial accounting and reporting practices in the main EU countries and in the US. EU harmonization and EU directives, the International Accounting Standards (IAS) of the International Accounting Standards Committee (IASC) and the US Generally Accepted Accounting Principles (US.GAAP) of the Financial Accounting Standards Board (FASB).

Teaching   Lectures 35 hours.
Assignments 45 hours

Assessment Coursework 50 %, examination 50 %.

2. LANGUAGE STUDIES   **10,5 ECTS credits (7 credits)**

2.1. Business Communication   **4,5 ECTS credits (3 credits)**

Aims   To provide students with in-depth knowledge and skills in business communication practices to operate efficiently in various business contexts.

Content   Writing in business, company profiles, report writing, memos and agendas. Meetings and presentations, formal and informal situations.

Teaching   Lectures 64 hours.
Assignments 56 hours.

Assessment Coursework 50 %, examination 50 %.

2.2. Chinese Language and Culture   **6 ECTS credits (4 credits)**

Aims   To provide students with basic knowledge of Chinese language and culture.

Content   Basis of spoken Chinese, introduction to written Chinese, Chinese cultural heritage.

Teaching   Lectures 90 hours.
Assignments 70 hours.

Assessment Tests 60 %, assignments 40 %

3. MARKET AREA ANALYSIS   9 ECTS credits (6 credits)

3.1. Internationalisation of Companies   3 ECTS credits (2 credits)

Aims   To provide students with knowledge of different ways of going global.

Content   Reasons and roadblocks of going international, international business transactions, sources of information, foreign trade organizations.

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment   Examination 60 %, assignments 40 %.

3.2. International Marketing   3 ECTS (2 credits)

Aims   To develop in the student an understanding of international marketing.

Content   Choosing the target market, export plan, international marketing mix, trade fairs and exhibitions.

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment   Examination 40 %, assignments 60 %.

3.3. Marketing Research   3 ECTS (2 credits)

Aims   To provide students with understanding of different ways to analyse markets and use the information in developing business processes.

Content   Planning of research, design of questionnaire, analysing results, SPSS

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment   Assignments

4. INTERNATIONAL ECONOMIC SYSTEM   6 ECTS credits (4 credits)

4.1. International Economics   3 ECTS credits (2 credits)

Aims   To give student an understanding of living in a global economy.

Content   Theories of trade, commercial policy, exchange rate systems and practices.

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment Examination 50 %, assignments 50 %.

4.2. International Politics, Agreements and Law   3 ECTS credits (2 credits)

Aims   To provide students with basic knowledge of the global political system and international law.

Content   Political theories, different forms of governments, international relations, role of the United Nations organisation, leading principles of international law.

Teaching   Lectures 35 hours.
Assignments 45 hours.

Assessment Examination 60 %, assignments 40 %.

5. DOING BUSINESS IN CHINA   15 ECTS credits (10 credits)

Taught by Shenzhen University, China

6. PROJECT WORK   5 ECTS credits(7,5 credits)

9. GENERAL PRACTICAL INFORMATION

Before leaving your country

ECTS/ERASMUS students must get certain documents before they leave their home country:

1. Form of identification/passport.
2. Document certifying Erasmus student status and grant allowance (home institution).
3. A letter of acceptance (will be sent to you by the host institution).
4. 2 photographs.
5. Medical information and form (E111). (See page 153)
6. The transcript of records from the home institution.

The following requirements are valid for full-term degree students:

1. Form of identification/passport.
2. Document confirming that you can support yourself financiallywhile in the country.
3. A letter of acceptance (will be sent to you by the host institution).
4. 2 photographs.
5. Medical information and form (E111). (See page 153)
6. The transcript of records from the home institution.

Arrival in Finland and the Kemi-Tornio region

Helsinki-Vantaa Airport is an international airport with good connections to all the European capitals and, beyond, to the US and Asia. There are good domestic connections. From all Finnish airports there is an airport bus service or local minibus to the centre of the local town and of course taxis are also available.

It is also possible to arrive by sea, from Sweden, Germany or Estonia. The main harbour towns are Helsinki and Turku. There are international train links from Moscow and St. Petersburg and from Sweden to northern Finland.

Kemi and Tornio are situated some 700 kilometres to the north of Helsinki. You can take a flight from Helsinki to Kemi and it takes about an hour. It is also possible to take a train from Helsinki to Kemi and it takes about nine hours. You can also arrive via Sweden and take a flight from Stockholm to Luleå which takes about an hour. The overnight train from Stockholm to Luleå is also an alternative. From Luleå to Kemi or Tornio you have to come by bus and it takes about an hour and a half. The cities of Kemi and Tornio are located within 25 kilometres from each other and there are many regular bus connections between the two cities.

Please fax or e-mail, in good time, your arrival date and flight number/train arrival time to the person who is in charge of your degree programme or the International Relations Coordinator (mobile phone +358 40 5316 381). When students arrive they will usually be met at the airport or the train station. After arriving, students are guided to the student residences.

Authorisation/identification documents

Passport

Before coming to Finland there are certain preparations you should undertake before leaving your home country. All foreigners except citizens of the Nordic countries need a valid passport. Citizens of the Nordic countries need an official identity card to prove their identity.

Visa

A visa is granted for a trip to Finland lasting for a maximum of three months or for a comparable short-term stay. A visa has to be applied for before departure to Finland in the country where the applicant permanently resides. Very seldom are visas granted or extended in Finland. Depending on your nationality and the length of your stay in Finland, you will require a visa or a residence permit. Students from the Nordic countries and students from EU/EEA (= European Economic Area = EU countries and Iceland, Liechtenstein and Norway) countries do not need visas at all. About 80 countries have concluded an agreement with Finland abolishing the visa requirements: check at your local Finnish embassy or legation whether your country is among these.

Students from countries outside the EU/EEA or outside the other visa-free countries who intend to stay in Finland for less than three months have to apply for a visa before arrival to Finland at the Finnish embassy or consulate in the country where the applicant permanently resides. To be issued a visa, the student should demonstrate that s/he has means to cover the living expenses, which means about FIM 200/ EUR 34 per day, while studying in Finland. The price of the visa is FIM 180/EUR 30.

Residence permit

Foreigners must fulfil certain criteria in order to obtain a residence permit for study in Finland. You must
  · (in most cases) be at least 18 years old.
  · intend to become a full-time student at an institution of higher education or a secondary vocational school.
  · show proof that you have been accepted as a full-time student at such an institution.
  · show that your application indicates the estimated length of studies and the final degree of your studies.

Students coming from the Nordic countries do not need residence permits. Students coming from EU/EEA countries need to apply for a residence permit if they intend to stay for more than three months. The residence permits for students coming from EU/EEA countries are granted by the local police in Finland . The guarantee money is not required from citizens of the EU and EEA countries. However, they must demonstrate that they have means to cover the living expenses while studying in Finland.

Students from countries outside the EU/EEA who intend to stay in Finland for more than three months must apply for a residence permit before arrival to Finland at the Finnish embassy or consulate in the country where the applicant permanently resides. If a non-EU resident arrives in Finland without the necessary residence permit, it is not usually possible to issue it in Finland. If you have come to Finland with a visa to take an entrance examination, and you pass this

examination, you will be eligible for a residence permit for one academic year at a time. In this case you can apply for a residence permit from local police authorities in Finland. Foreign students from countries outside the EU/EEA countries are required to demonstrate that they have sufficient funds by depositing the sum of FIM 30 000/EUR 5046 , with no conditions restricting the use of this account. A new deposit is required at the beginning of each academic year.

The price of the residence permit is FIM 130/ EUR 22 if you are a student. The fee must be paid also in the event that the visa or residence permit is not granted. And please note that it must be paid in advance!

Work permit

Students who are citizens of EU/EEA countries or participate in EU education need no work permits and they are allowed to work without restrictions. Other international students are allowed to do paid work for a maximum of twenty hours a week during the semesters and full-time during the vacations. You will need a special permit if you intend to work more than this during the semesters. A work permit can be obtained from the Finnish embassy in your country or a consulate/legation abroad or in Finland from the local police authorities.

Civil registration

If you wish to stay in Finland more than a month, you have to submit an official notification of change of residence, the Notice of Moving, to a local register office within one week after your arrival. Notice should then be given every time you move within the country or away from it. The notification should be made within one week before or at the latest one week after moving. The forms for the Notice of Moving are available at post offices, register offices and police offices. If you move from another Nordic country, you must present an Inter-Nordic Migration Form. Citizens of the Nordic countries do not need to report at the Register Office.

Basic information (name, address, nationality and date of birth) on people residing in Finland is recorded in the Population Information System. On the basis of the registration, a foreigner is given the Finnish personal identity number. If you reside in Finland for at least one year, you must be registered in the Population Information System. In case you wish to stay for a shorter period of time it is possible to ask for registration to get the personal identity number. However, no municipality of residence is registered for you in Finland and therefore you do not necessarily have the same rights as persons who reside in Finland permanently. The Finnish personal identity number is used for identification purposes in many situations such as in banks, hospitals and libraries. The registration takes place in a local Register Office which in most cities is located at the main police station.

Accommodation

For ECTS/ERASMUS students, the polytechnic aims to arrange accommodation. International students who are not a part of any exchange program have to arrange accommodation on their own. The polytechnic does not have dormitories of its own. Students can apply for a student flat to " Tornion Oppilasasuntola Oy" or "Kemin Opiskelija-asuntosäätiö" (the Tornio Student Apartment Administration Company and the Kemi Student Dormitory Foundation respectively). Also the cities of Kemi and Tornio and the private sector provide flats which are rented out to students. Contact information is provided in attachment.

In Tornio the student housing is located within a 500m radius of the polytechnic. You are provided with a single room and will share kitchen, bathroom and shower with two students. The flats are furnished. You will have to bring your own bed-linen except a mattress. In the kitchen there are no cooking utensils. You also have access to laundry facilities. The rent is approximately FIM 850/ EUR 143 per month. If you want to you can share the room with another student and then the rent is approximately FIM 500/EUR 84 person/month. Electricity, heating and water are included in the rent. Students have to pay a deposit one month's rent which returned when leaving if there are no claims.

In Kemi the student housing is located both in the city center and within a 2.5km radius of the educational units. You are provided with a single room and will share kitchen, bathroom and shower with two students. The flats for single persons are furnished but so-called family apartments are unfurnished. When it comes to other equipment and laundry facilities the information given above on student housing in Tornio is also valid for Kemi. The rent is about FIM 850 – 1250 (EUR 143 - 210). Electricity, heating and water are included in the rent. The deposit is FIM 800 (EUR134).

The Unit of Health Care and Nursing and The Unit of Social Care provide a few well-equipped and reasonably-priced flats for their visiting students and teachers. In the event that you rent a flat from the private sector prepare to pay higher rent. In the private sector a deposit is usually one or two month's rent which is returned when leaving if there are no claims.

When you fill in the application for Foreign Students and Socrates/Erasmus Student Exchange Programme, you are also asked about the need for accommodation and asked to fill in the special application for accommodation. Both applications, for Student Exchange Programme and accommodation, must be sent at the same time to the International Officer.

Health care and insurance

The level of health care in Finland is high. There are two parallel systems: the public one financed by the government and municipalities, and the private sector. Both sectors are available but the private services are more expensive to the patient. There are public health-care centres and hospitals throughout the country.

Citizens of the EU/EEA countries are covered by the National Health Insurance plan administrated by the Social Insurance Institution, or KELA (Kansaneläkelaitos). If their stay in Finland lasts for less than one year , they must have the E111 form from their local social security office before arriving in Finland in order to be covered by the plan. If the stay of an EU/EEA citizen lasts for more than a year, s/he must get the E106 or E109 form from the local social security office before arriving in Finland. This form must always be taken to a local KELA office after arriving in Finland.

You need some basic vaccinations: Tet + d, Polio, MPR (Mumps = Parotitis, Measles = Morbilli, German Measles = Rubella). Should you wish to do your practical training here, for example in a hospital, you have to check the required vaccinations and tests from the education unit.

In Kemi the Unit of Health Care and Nursing runs its own "Health Station" called "Terveyspysäkki". A nurse is available as follows:

Monday   8-11
Tuesday   12-14
Wednesday   8-11
Thursday   8-11
Friday   8-11

During the other hours you have to make an appointment. Telephone number is 258 422 and the address is Meripuistokatu 26, 94100 Kemi. In Tornio a nurse is available Monday-Friday 8.00 am. to 10.00 am. in the following address: West Lapland Vocational School, Kauppakatu 35 A 95400 Tornio. Telephone number is 451 225.

In case of serious or acute illness, contact the emergency service in the municipal health care centres and hospitals. An appointment in a health-care centre costs about FIM 50-100 (Euro 8.4- 16.8). In the event of serious illness or injury transportation can be called from the general emergency phone number **112.** In a dental emergency you have to turn to the dental clinic in a local health-care centre.

For your own safety it is advisable to have insurance. You have to check whether your school has insured you during your stay abroad. Otherwise you have to take care of your insurance by yourself. Students coming from outside the EU/EEA countries should pay special attention to their insurance because they are not covered by the National Health Insurance in Finland. Discuss with your individual insurance company what kind of cover would be most beneficial for your stay in Finland. The Centre for International Mobility CIMO and Pohjola Insurance Company Ltd have signed a cooperation agreement on insurance concerning students, research workers and trainees. For further information contact CIMO (http://www.cimo.fi).

Estimated personal expenses per month

Polytechnics do not charge tuition fees. Usually the libraries have a few copies of course literature but sometimes students have to buy the books or pay for other kinds of studying materials. Accommodation expenses are approximately FIM 850 (EUR 143) per month if you live in a student dormitory and FIM 2000 (EUR 336) per month if you rent a flat from the private sector.

Groceries are more expensive in Finland than in many other countries. All education units have a restaurant of their own and lunch there costs about FIM 10 - 12.50. (EUR 1.7 - 2). There are always two lunch alternatives; the other one is vegetarian. Eating out is more expensive. Do not forget to include personal and leisure expenses. The total monthly living expenses of a single student average around FIM 4,000 (EUR 670).

Banking

Travellers' cheques are best. Personal cheques are hardly ever used in Finland. The most common credit cards such as Visa can be used, but make sure that your credit card has an account with money in it before you come. Banks charge approximately FIM 20 (Euro 3.5) for money exchange and it is advisable to limit the number of money exchanges you make. Be sure that you have Finnish money on hand when you arrive in Finland.

After arrival exchange students can open a bank account. Prepare to prove your identity when opening an account. The account is provided with a cash card which you can use to withdraw money from cash machines. You recognise the cash machines from the logo OTTO. You can get banking assistance from student advisors, teachers, the International Relations Officer and banks.

Communication

E-mail and telephone

E-mail is a widely-used way of communicating both internationally and domestically. All students have access to computers and use of e-mail is available to them.

Students have access to coin/card telephones in the polytechnic. There are also coin/card telephones in the student residences. Card telephones are more common nowadays and telephone cards can be bought from, for example, kiosks. Mobile phones are extremely common, also among students.

How to call abroad

Dial the international prefix 990, 999, 994 or 00 (some regional/country phone charges are more favourable depending on the prefix you choose). Then dial the country code, trunk code and the subscriber's number. Note that the first number of the trunk code (often 0) is omitted.

Leisure time facilities

There are several possibilities to take part in sporting activities in the Kemi-Tornio region. In the wintertime the most popular activities are cross-country skiing and downhill skiing, for example slalom. Special activities such as husky and snowmobile safaris are also available and snow provides plenty of opportunities for your creativity. Also ice sports, such as ice hockey and "bandy" (a variant of hockey with a ball instead of a puck) are good outdoor activities. In both towns there are also good facilities for indoor sports such as tennis, squash, bowling, gym etc. Both towns have high-standard swimming halls which are worth a visit.

The Tornio river offers great opportunities for fishing. Other popular hobbies in the summertime are, among other things, sailing and golf. The golf course of Tornio-Haaparanta, Green Zone Golf, is the only course which crosses a border between two states. There are many beaches and during hot summer days it is refreshing to dive into the cool water.

If you prefer cultural experiences, there are museums and beautiful churches in both towns, for example The Aine Art Museum in Tornio and the church of Tornio are worth visiting. The theatre in Kemi has several plays in its repertoire. Both city libraries offer a great book collection to the friends of literature. If you are keen on history there are many monuments to see. Several discotheques, pubs and restaurants provide great opportunities for social gatherings or nightlife.

KETOAKKU - the student body of Kemi-Tornio Polytechnic

KETOAKKU consists of six different student bodies from all units of Kemi-Tornio Polytechnic. It has approximately 400 members. It was founded on 1st January 1996 and registered officially on 23rd of April 1998.

The purpose of KETOAKKU is to look after students' rights in educational and social matters. We also try to make students feel at home while studying in Kemi-Tornio Polytechnic. KETOAKKU arranges several student events during the terms of the academic year. Information about events can be found on the school notice board.

Student bodies from different units of Kemi-Tornio Polytechnic play a very active role in tutoring foreign students. They also arrange various freetime and leisure activities for their students in their own units. For further information feel free to contact the student body in your own unit.

For foreign students KETOAKKU arranges a meeting every month. The purpose of those meetings is to introduce Finnish culture to foreign students and vice versa. It is also an excellent opportunity for foreign and Finnish students to get to know each other.

We have a International Evening in KETOAKKU on the 26th of April starting 18.00. The purpose the evening is to get to know different cultures and their habits. We also try to create contacts between foreign and Finnish people. KETOAKKU is arranging the evening with the church and foreign people. There will also be members of international organisations such as Amnesty and they will tell something about their organisation.
You're all very much welcome!

KETOAKKU has its own office on Nahkurinkatu 6, 2nd floor, Kemi. The office is open Mon. -Fri. 8 am. to 4 pm. All students are very welcome to visit there if they have any problems, big or small. The office is also an excellent place to do assignments or just spend time playing games: darts, pinball etc. The office can also be used during the evenings. If you need to use our premises, please contact the office.

For further information please do not hesitate to contact us!

Kemi-Tornio Polytechnic student body KETOAKKKU
Nahkurinkatu 6, 2nd floor
94100 KEMI
tel 016-250 425
fax 016-250 426
e-mail ketoakku@tokem.fi

ATTACHMENTS

APPLICATION I

Socrates/Erasmus Student Exc

SENDING INSTITUTION   (Please wr

University and department	
Head of department	
E-mail	Phone and fax
Socrates coordinator	
E-mail	Phone and fax

Signature of departmental Socrates coordinator   Signature of institutional Soc

Date: Date:

STUDENT PERSONAL DATA

Family name		First names
Nationality	Sex Male ☐ Female ☐	Marital status Single ☐ M
Street address	Postal code and country	
Country	E-mail (if available)	
Telephone number (note country code)		
Programme of study and year at sending institution		

APPLICATION (please select appropriate category)

Degree Programmes		Period of study
Euro-Economics Education (Bachelor of Business Administration)	☐	Autumn semester Spring semester (
Cross-Border Engineering (Bachelor of Engineering)	☐	
International Nursing Programme (Bachelor of Nursing)	☐	
International Systems Specialist Education (Bachelor of Business Administration)	☐	
Non-degree programmes		**Period of study**
Gateway Education	☐	Autumn semester
China as a Market Area	☐	Spring semester c

Arrival date:

Accommodation should be organised   yes ☐   no ☐   from   to

(please refer to the special application for accommodation)

ECTS - LEARNING AGREEMENT

Course unit code (if available)	Course unit title (as indicated in the information package)

Kemin opiskelija-asunto säätiö

(The Kemi Student Dormitory Foundation)

Tornion oppilasasuntola Oy

(The Tornio Student Apartment Administration)

APPL

for acco

APPLICANT

Surname	Nationality	S
First names	Sex Male ☐ Female ☐	M S

HOME ADDRESS

Street address	Telephone number (note country co
Postal code and town	Country

HOME INSTITUTION

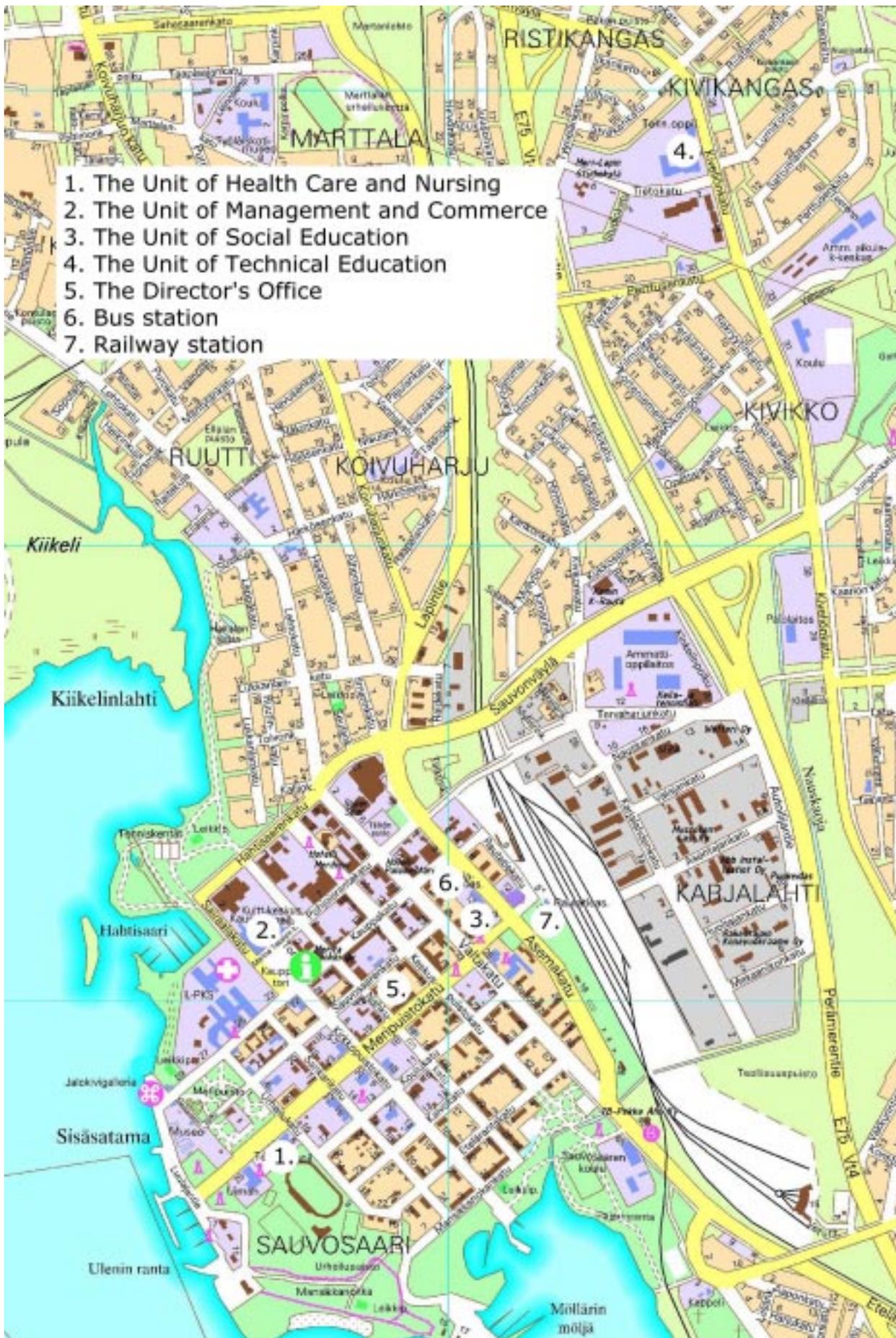| Name of the home institution	
Street address	Telephone number (note country co
Postal code and town	Country

GENERAL INFORMATION

Name of the school you have been accepted in	Education programme
Date of arrival	Need for accommodation from to

OTHER EXTRA INFORMATION (what kind of room required, allergies etc.)

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WHERE WE ARE

KEMI TORNIO

HELSINKI

© KEMI-TORNIO POLYTECHNIC

Map of Kemi

1. The Unit of Health Care and Nursing
2. The Unit of Management and Commerce
3. The Unit of Social Education
4. The Unit of Technical Education
5. The Director's Office
6. Bus station
7. Railway station

Map of Tornio

1. The Unit of Business and Data Processing
2. The Unit of Cultural and Media Studies
3. The International Department
4. Bus station

Socrates/Erasmus programmes' cooperation partners
Academic year 2000 - 2001

COUNTRY	FIELD	NATURE OF COOPERATION

THE NETHERLANDS

HOGESCHOOL ALKMAAR
Postbus 403
1800 AK ALKMAAR
THE NETHERLANDS

Contact person	Business	Student exchange
Mr. Hans van Niekerk		Teacher exchange
Tel +31 72 518 3714/731		Curriculum work
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HOGESCHOOL VAN UTRECHT
Faculty of Science and Engineering
P.O.BOX 182
3500 AD UTRECHT
THE NETHERLANDS

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HUNGARY

COLLEGE FOR MANAGEMENT AND BUSINESS STUDIES (KULKERESKEDELMI FÖISKOLA)
H-1165 BUDAPEST, DIOSY LAJOS U.22-24
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KODOLANYI JANOS UNIVERSITY COLLEGE
SZEKESFEHERVAR 8000
SZABADSAGHARCOS UT 59.
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http://kodolanyi.hu		

KANDO KALMAN POLYTECHNIC
Institute of Computer Engineering
TAVASZMEZO U. 15-17
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AUSTRIA

FACHHOCHSCHUL-STUDIENGÄNGE WIENER NEUSTADT
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GREAT BRITAIN

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RIVER HOUSE
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GERMANY

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ESTONIA

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PORTUGAL

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E-mail: International.Office@adm.luth.se		

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About accommodation

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TORNION OPPILASASUNTOLA OY
(The Tornio Student Apartment Administration)
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95400 Tornio, Finland
Tel. + 358 16 430 985

TORNION VUOKRA-ASUNNOT OY
(The Tornio Rental Apartment Administration)
Kauppakatu 10
95400 Tornio, Finland
Tel. + 358 16 432 227

KEMIN KAUPUNGIN VUOKRA-ASUNNOT
(Rental apartments of the city of Kemi)
Valtakatu 26
94100 Kemi, Finland
Tel. + 358 16 259 298

About health care

GENERAL EMERGENCY NUMBER 112

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The Unit of Health Care and Nursing
Meripuistokatu 26
94100 Kemi
Tel. +358 16 258 422

KEMIN TERVEYSKESKUS
(Health-care centre in Kemi)
Kauppakatu 22
94100 Kemi
Tel.+ 358 16 259 700

EMERGENCY MEDICAL SERVICE IN THE CENTRAL HOSPITAL IN KEMI
Kauppakatu 25
94100 Kemi
Tel.+ 358 16 243 271

TORNION TERVEYSKESKUS
(Health-care centre in Tornio)
Sairaalakatu 1
95400 Tornio
Tel. + 358 16 432 814

About taxi services

Taxi services in Kemi and Tornio
Tel. 100410

About living and studying in Finland

CIMO
Centre for International Mobility
P.O.Box 343 (Hakaniemenkatu 2)
FIN-00531 Helsinki, Finland
Tel. + 358 9 7747 7033
Fax + 358 9 7747 7064
E-mail: cimoinfo@cimo.fi
http://www.cimo.fi