



KEMI-TORNIO POLYTECHNIC

STUDY GUIDE 2004-2005

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WELCOME TO
KEMI-TORNIO
POLYTECHNIC!



GREETINGS FROM THE RECTOR

Welcome to study in Kemi-Tornio Polytechnic!

Kemi-Tornio Polytechnic is situated on the coast of the Gulf of Bothnia near the Swedish borders some 700 kilometres to the north of Helsinki. The Kemi-Tornio area has about 70000 inhabitants. Typical of the area is the open border with Sweden and the closeness of Oulu and Luleå, centres in Northern Finland and Sweden. There are big concentrations of forest, metal and ICT industries in the area. Due to top industry the area produces some 8 % of Finland's export value. The biggest industrial investment in recent years was made in Tornio.

Kemi and Tornio are not only industrial towns. They are also centres of tourism and education. Snow and ice and the blue dusk are the touristic assets in the area. A snow castle is being built again this winter and it is possible to stay overnight in a snow hotel. There are also art exhibitions connected with the snow castle. In addition to skiing, wandering and snow scooters rides it is possible to experience something unique in Kemi: an ice breaker cruise and swimming in the middle of ice floes are for many an unforgettable experience.

Our Polytechnic started in 1992 as the system of polytechnics was established in our country. About 2500 students study today in Kemi-Tornio Polytechnic.

Our students can choose the most suitable educational sector from the sectors of culture, business and administration, social studies, technology and health care. We have received recognition for promo-

ting learning and for regional development. The Ministry of Education rewarded Kemi-Tornio Polytechnic for excellence of regional impact in 2001 at the proposition of the evaluation council of institutions of higher education. The ability of the Polytechnic to perceive its working environment well was seen as an essential strength. The Polytechnic was seen as having a significant role in planning regional development strategies and in participating in development projects.

Internationalism is part of the tradition and the present of both the area and of our Polytechnic. The closeness of the border and navigation have had a significant influence on this. International student and teacher exchange and educational programmes in foreign languages are central activities in our Polytechnic for which the Ministry of Education rewarded our Polytechnic in 2000.

We are looking forward to seeing you in Kemi-Tornio.



Ms Riitta Käyhkö
Rector

ABOUT FINLAND

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 hosted 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 5,2 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.



ABOUT FINLAND



Playing golf at midnight!



In January the sun barely rises.



"Sampo" - an arctic icebreaker



The town of Kemi at a winter night.

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. To be able to get more precise picture on prevailing weather conditions in Finland, see the two diagrams below which show the average temperatures (since 1996) in Helsinki, Finland and Minnesota, USA.

Kemi-Tornio Region

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 23 000 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 (such as Nokia), dealing for example with information and environment technology, has increased, and Kemi's geographical position offers many

ABOUT FINLAND

possibilities for developing tourism. For example, the world's biggest snow castle is located in Kemi as well as the icebreaker Sampo. 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. For further information please see www.kemi.fi

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 22 000 and the surface area of the city is 1227 square kilometres. The main means of livelihood in the area are industry and

services. The AvestaPolarit steel factory, situated in Tornio, is nationally and internationally 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. For further information please see www.tornio.fi

Regional co-operation

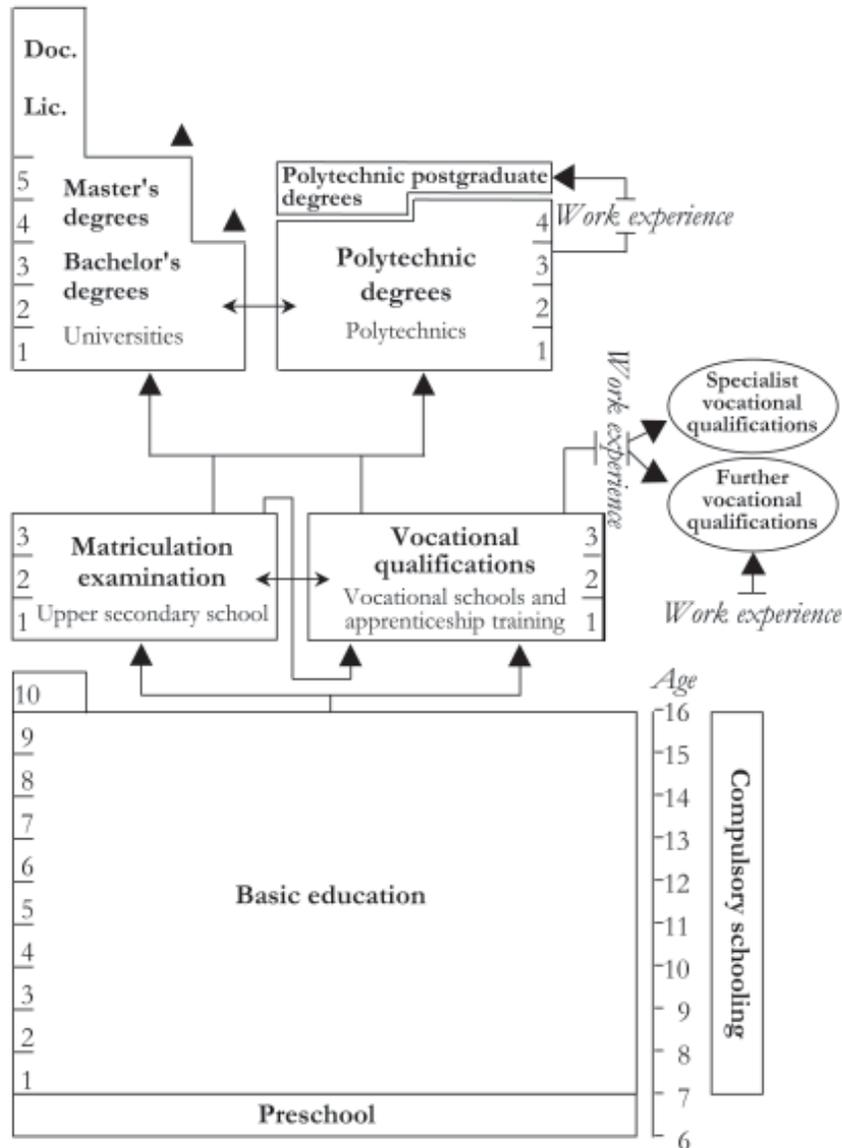
The towns of Kemi and Tornio (distance approximately 25 kilometres), as well as Haparanda across the border in Sweden, have a combined population of approximately 75.000. Today the region has an important role as a link between East and West, as well as the North and the South of Europe. In addition 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.



Tornio.



THE FINNISH EDUCATIONAL SYSTEM



Source: http://www.minedu.fi/minedu/education/edusystem_eng.pdf

THE FINNISH EDUCATIONAL SYSTEM

Polytechnics in the educational system

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. 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. There is a country-wide experiment on post-graduate degrees, too.

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.

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 corresponds to 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.

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.

Examination and assessment results are usually expressed in grades. 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.

Exchange 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 partner institutions. They will be able to transfer these academic credits from one participating institution to another on the basis of prior agreement ("Learning 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.

The general principles of the ECTS system are complied with in the Kemi-Tornio Polytechnic.

Due to the polytechnic's commitment to both internationalism and student and staff exchanges, it has become more important to guarantee academic recognition of studies abroad.



AN ENJOYABLE CENTRE OF ACTIVE LEARNING

Kemi-Tornio Polytechnic situated in Finnish Lapland, near the Swedish border. The polytechnic is made up of six units which specialise in different areas of education. These units are located in the neighbouring towns of Kemi and Tornio.

At Kemi-Tornio Polytechnic, we consider our most important task to be the training of entrepreneurially spirited, highly skilled people, who understand the conditions and possibilities of the North. We provide education for young people and adults leading to polytechnic (Bachelor's) degrees in the fields of **business and administration, culture, technology and communications, health care and social services**. We have a variety of 14 degree programmes. In four of the programmes the language of tuition and studying is English.

Kemi-Tornio Polytechnic with its constituent units has developed a broad and active network for international cooperation opening up opportunities for students to complete part of their Bachelor's thesis and practical training abroad.

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.

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. Through domestic and international cooperation 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.

Additionally, some courses are provided with the help of web-based learning environments and different kinds of eLearning solutions are in use.



The Ministry of Education has awarded us for our active international operations and for our impact in regional development in the Kemi-Tornio area.

At the moment there are about 2400 students in Kemi-Tornio Polytechnic and the staff consists of approximately 200 persons.

There are both degree and non-degree programmes in English in Kemi-Tornio Polytechnic. The programmes in English are:

- Degree Programme in Business Management (210 ECTS credits/140 Finnish credits)
- Degree Programme in Business Information Technology (210 ECTS credits/140 Finnish credits)
- Degree Programme in Information Technology (240 ECTS credits/160 Finnish credits)
- Degree Programme in Health Care (210 ECTS credits/140 Finnish credits)
- Technology as Business - TaB, non-degree programme (30 ECTS credits/20 Finnish credits).

GOAL FOR 2005

The polytechnic is a very important R&D partner for working life and industries, municipalities and regional authorities in the region. Every graduate has participated in practical, real-life projects as a part of studies. The polytechnic is an active partner in regional strategy and programme work strongly committing to decisions made. The main goal in R&D work is to develop firms and working life and formation of new jobs. The New-Business Cent-

re helps start up companies. Municipality and branch-based development programmes are taking place in Northern Finland and Scandinavia. Students participate in R&D work in their learning projects and bachelors thesis. The research groups consist of teachers, students and researchers, who also teach in the field of their expertise. The groups co-operate with universities and research institutes. For personnel R&D is an excellent opportunity to develop their expertise.

POINTS OF EMPHASIS

The main fields of R&D are at the moment:

- Content for information networks, e-commerce, logistics
- Special questions for communication and media in a sparsely populated area
- Development of work processes, practices and work methods
- Digital techniques, electronics production technology, machine vision and combinations of these in electronics production
- Research and development of regional services and home care technology



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, IT-Manager, Career Coordinator, Study Affairs Officer, Finance office and Public Relations.



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CAREERS AND RECRUITMENT SERVICES

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 working life. For students, it provides education and concrete help with the job-seeking process, and for enterprises it is a good way to recruit a skilled workforce.

Contact information:
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Careers and Recruitment Services
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ADULT EDUCATION AND BUSINESS SERVICES

Our educational facilities and business services provide, above all, a multi-faceted education, which meets the needs of local people and business life. The education provided offers an opportunity to achieve an academic degree and a post-graduate degree or study diverse specialist subjects at different levels.

Education is renewing continuously, predicting the forthcoming changes and needs of business life as well as reacting rapidly to the demands of working life. The purpose of adult education is to develop life long learning as well as the implementation of education in top fields of expertise at a national and international level and support the generation of new entrepreneurship

RESEARCH AND DEVELOPMENT

The main goal of research and development done in Kemi-Tornio Polytechnic is to make real-life-projects a part of studies and in this way bring studies and working life closer to each other. The size of projects varies. The most challenging ones are, for example, product development projects, applied technical research, development of information network services on national and international level, and evaluation projects. Both researchers, teachers and students work in the projects.

The strengths of our R&D are multidisciplinary, large international cooperation

network, strong regional cooperation and experience. R&D supports development of teaching both pedagogically and in know-how, deepening of cooperation with industries and working life, and internationalisation, and in other ways has a positive effect on the quality. To ensure quality and volume we do operate at a European level, but at the same time the work is focused on the needs of the region and in line with the strategy and development programmes of the region. The goal is to make the existing strengths stronger, help the growing branches to grow faster, develop the service structure and support development of welfare services.

INTERNATIONAL DEPARTMENT AND COOPERATION

Our role of the International Department is to create and develop the polytechnic's internationalisation operations. We coordinate, consult, create projects and carry them out. It is responsible for linking international operations to the polytechnic's studies and research.

The department, through its International Officer, coordinates Leonardo da Vinci and Socrates Programme cooperation and develops cooperation between the polytechnic, international partners and the business and working life in the region. The polytechnic cooperates with institutions of higher education in Europe, Russia, the United States, Canada and China. Several international exchange programmes (Socrates, Leonardo da Vinci and Nordplus) help students and staff to find places



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abroad, as well as assisting foreign students in coming to the Kemi-Tornio Polytechnic. The charter of Erasmus partner schools is attached at the end of the guide.

A starting point of the projects is integration with the polytechnic's own research. Project leaders and staff are recruited from the polytechnic's own personnel so that experience from projects can be put to use in teaching. This way of working with projects serves a teacher's own qualification and studies. There are also opportunities for students to do practical training and graduation work within the polytechnic.

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An essential part of project work is international co-operation put through with local industry. The objective of this form of activity is development of the region's companies and public sector, provision of new employment and making connections to international corporations and to other co-operation partners, by making use of the potential of the Information Society.

The operations of the international department are targeted at certain areas. Such areas are for example Northern Scandinavia and European countries. Resources for co-operation with China as well as Russia and especially the Barents region are also being granted.



LIBRARY AND INFORMATION SERVICES

Kemi-Tornio Polytechnic provides two Learning Centres. There are also libraries in the Unit of Technical Education and the Unit of Health Care and Nursing.

User rights

The collections and services of the polytechnic libraries are all at the customer's disposal.

The computers of the polytechnic library are to be used only by the students of Kemi-Tornio Polytechnic and Kemi-Tornio Vocational College. The user of the library commits her/himself to observe the rules and instructions that are given by the library staff. The user guidelines can be obtained at the service points of the library.

Facilities

The library offers its customers the use of PC workstations (95) connected to the computer network of the polytechnic. All workstations contain word processing, calculation and graphics programs. The machines are also connected to the Internet. The library has approximately 200 reading places.

Collection and material

Polytechnic library has its own database together with other polytechnic libraries in Finland. There are about 90 000 items and more than 600 printed domestic and foreign magazines available in the library. 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. The electronic magazines and journals can be accessed from all the workstations connected to the polytechnic network. The library has access to various Finnish and foreign databases. There are more than 5000 electronic journals such as EBSCO scholarly journals.

Material list

The material of the libraries has been catalogued electronically according to the general library decimal classification system.

Of all Bachelor thesis written at Kemi-Tornio Polytechnic, from 1995 onwards, bibliographic information (author(s), year, etc.) is available. If the content of the work is not confidential, the summary will also be visible. From 1999 onwards, Bachelor thesis can be seen in their entirety (in pdf format), provided the content is not confidential and provided permission has been obtained from the author(s) of the work to copy the material.

Information retrieval requests and information service

The library and information service carries out information searches, instructs in the use of the lists and information sources and the use of the library in general. It also arranges introduction visits to the libraries. The library and information service provides the user with different databases and provides instructions for their use. The

information specialists of the library can also carry out information searches for customers. The use of the databases and the assistance of the library staff are free of charge as a rule.

Information retrieval from on-line databases in foreign countries is subject to a fee, however. An introduction into the use of the library and its services will be arranged for all the students at the beginning of their studies. The information retrieval training is part of the curriculum.

Borrowing and renewal of loans

The library and information service lends out material from its collection as home loans. However, the reference collection is meant to be used in the libraries. A limited part of the reference materials can be lent for short-term (single night or weekend) loans. The loan of materials from the collection of the own library is free of charge. Material from the collection that has been lent out can be reserved. The customers can reserve materials and renew their loans even by phone or via the Internet.

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.



Contact information:

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Valtakatu 22,
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Tornio Learning Centre will get new premises in the Autumn 2004 at Etappitie
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Finland



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IT-SERVICES

The task of the It-services is to develop hardware and network environments and related support services in the field of research and education.

Workstations and servers

The Kemi-Tornio Polytechnic has both technical and pedagogical support for the use of information and communication technology in teaching. We have about 1200 high quality workstations and servers with windows 2000/2003 operation systems. We are supporting eLearning systems like mediaservers, videoconference and virtual networks.

Network

The new ethernet-based network technology is used between the units of the poly-

technic, 50-1000 Mbits. Our polytechnic is a part of the FUNET network (Internet of universities and polytechnics). The base network is 2.5 Gbits Ethernet and our connection is 155 Mbits ATM. The polytechnic belongs to the Kemi-Tornio-Haaparanta regional network which operates both in Finland and Sweden. We are using security systems like firewalls, virtual networks and routers/switches.

Software and services

Our network operation systems are mainly Windows2000/2003. We have Microsoft Polytechnic Agreement and we belong to MS It Academy Program. We have modern helpdesk- and workstation support-systems and it's possible to give remote support thru networks.

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THE INTERNATIONAL PROGRAMMES

BUSINESS & ICT

Unit of Management and Commerce in Kemi and Unit of Business and Data Processing in Tornio 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 is qualified for planning, expert and managerial posts, as well as many professional tasks requiring a high standard of expertise. 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 firsthand 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 educational field of business and administration has a staff of 80. The business studies are characterised by their practical orientation and freedom of choice. BBA degree programmes take 3.5 years (210 ECTS credits/140 Finnish credits). The units offer five degree programmes with several specialisations available.

1. Degree Programme in Business Information Technology (BIT, in English)
2. Degree Programme in Business Management (BM, in English)
3. Degree Programme in Business Management (in Finnish).
4. Degree Programme in Business Information (in Finnish).
5. Degree Programme in Business Logistics (in Finnish).



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The Department of Adult Education in the field of business and administration education arranges circa 18 000 hours annually. Modern technology is utilised in flexible and distance education. The courses offered are: Polytechnic degree studies, Open Polytechnic courses, specialized studies, vocational training, post-graduate studies, employment education, personnel training, New-Business Centre. Students have a good opportunity to use computers, also outside the scheduled hours, to work with their assignments etc.

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DEGREE PROGRAMME IN BUSINESS MANAGEMENT

Bachelor of Business Administration

Kemi-Tornio Polytechnic offers a degree programme in Business Management. Its main aim is to provide students with skills required in international business. The Degree Programme in Business Management leads to a Bachelor's degree in Business Administration (BBA). 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. 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 local and global business environments

- are able to work independently as well as part of a team
- have developed their communication and cross-cultural skills
- have developed competence in information technology and in more than one foreign language

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, Business Mathematics, Law, Economics, Communication in Business and Presentation Skills. 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.

Outline of studies**181040 Tutoring
1,5 ECTS credits (1 credit)**

Objective: to coach students to be able to comprehend study materials related to their curriculum, to encourage them to be able to cope with the study load and discuss matters during reception hours

**181041 Marketing
4,5 ECTS credits (3 credits)**

Objective: to give students a basic understanding of modern marketing and its role in com-

panies operating in a rapidly changing business environment

Content: the concept of marketing, evolution of marketing concept, marketing in a modern firm, the internal and external marketing environment, the dimensions of consumer and organisational buying behaviour, the segmentation process, target marketing and positioning

Teaching: lectures 50 hours, assignments 70 hours

Literature: Jobber David: Principles and Practice of Marketing. Latest edition!

Assessment: examination 60 % and assignments 40 %

**181042 Information Retrieval and Elearning
3 ECTS credits (2 credits)**

Objective: the students learn to use library and information services available, the student manages the information process and he/she has ability to find, evaluate and use information critically

Content: basics of information retrieval, information resources, libraries in Finland and library services, searching for information from databases, searching for information on the Internet, evaluation and selection of information, E-learning

Teaching: 36 hours of supervised work, assignments 44 hours

Assessment: continuous assessment and assignments

**181043 Management and Society
6 ECTS (4 credits)**

Objective: to provide students with the idea that organisations and management deal with people and their motivations: secondly that it is about the person who acts as "a manager".

Content: manager and society: the role of managers and organisations and their societal behaviour: strategic issues: what is the course of the organisation, decision-making, creativity and learning organisation: organisational design and structure: functional-, product-,

geographical- and market structure, centralisation or decentralisation, people in organisations: motivation, leadership, career development and organisational culture, process management: planning, auditing and control, management information systems, reengineering to develop new structures

Teaching: lectures 45 hours, assignment 115 hours

Assessment: assignments 100 %, presentations, discussion and participation

Literature: George Jones: Contemporary Management, 1999, ISBN 0072334568 McGraw-Hill. Courtland L. Bovée: Business in Action, Prentice Hall, 2001, ISBN 0131833103. Huczynski: Organisational Behaviour, Financial Times, Prentice Hall, 4th edition, 2001, ISBN 0273651021. Gowthorpe Catherine: Business Accounting and Finance for Non-Specialists, Thomson Learning, 2003, ISBN 1861528728.

**181044 Fundamentals of Logistics
3 ECTS credits (2 credits)**

Objective: to provide students with general knowledge and an overall view of the relevant topics in the field of business logistics

Content: scope of business logistics, achieving an integrated supply chain, customer service dimension in logistics, service-driven logistics systems, managing material flows, inventory control, ABC analysis and other techniques, measuring logistics costs and performance, benchmarking logistics process, purchasing process, purchase portfolio purchasing partnerships, transport cost characteristics, transport mode selection; road, rail, sea, combined, air, pipelines, logistics services, future trends in logistics

Teaching: lectures 48 hours, assignments 72 hours

Assessment: lecture and reading material test 40 %, assignments 60 %, assignments can be carried out individually or in a team

Indicative reading: Christopher M. 1998. Logistics and Supply Chain Management. Strategies for Reducing Cost and Improving Service. Second edition. Prentice Hall. Lontoo. 294 p

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Content: the concept of marketing, evolution of marketing concept, marketing in a modern firm, the internal and external marketing environment, the dimensions of consumer and organisational buying behaviour, the segmentation process, target marketing and positioning

Teaching: lectures 50 hours, assignments 70 hours

Literature: Jobber David: Principles and Practice of Marketing. Latest edition!

Assessment: examination 60 % and assignments 40 %

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geographical- and market structure, centralisation or decentralisation, people in organisations: motivation, leadership, career development and organisational culture, process management: planning, auditing and control, management information systems, reengineering to develop new structures

Teaching: lectures 45 hours, assignment 115 hours

Assessment: assignments 100 %, presentations, discussion and participation

Literature: George Jones: Contemporary Management, 1999, ISBN 0072334568 McGraw-Hill. Courtland L. Bovée: Business in Action, Prentice Hall, 2001, ISBN 0131833103. Huczynski: Organisational Behaviour, Financial Times, Prentice Hall, 4th edition, 2001, ISBN 0273651021. Gowthorpe Catherine: Business Accounting and Finance for Non-Specialists, Thomson Learning, 2003, ISBN 1861528728.

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Teaching: lectures 48 hours, assignments 72 hours

Assessment: lecture and reading material test 40 %, assignments 60 %, assignments can be carried out individually or in a team

Indicative reading: Christopher M. 1998. Logistics and Supply Chain Management. Strategies for Reducing Cost and Improving Service. Second edition. Prentice Hall. Lontoo. 294 p

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181045 Financial Accounting and Taxation

6 ECTS credits (4 credits)

Objective: 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 provide the student with an understanding of the Finnish taxation system and to give a view of taxation principles in another EU country

Content: information system: 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, taxation: income tax and value-added tax

Teaching: lectures 70 hours, assignments 90 hours

Assessment: one written paper 60 %, assignments 40 %

Literature: Woods: Business Accounting 1 and 2, Pitman Publishing, 1999 Atrill, McLaney: Accounting and Finance for Non-Specialists, Prentice Hall, 2001, Berry, Jarvis: Accounting in a Business Context, Thomson Learning, Bendrey, Hussey, West: Accounting and Finance in Business, Lymer, Hancock: Taxation - Policy and Practice, Thomson Learning, 2001, Gowthorpe: Business Accounting and Finance for Non-Specialists, Thomson Learning, 2003. Alexander, Nobes: International Introduction to Financial Accounting, Prentice Hall, 2001

181046 Information Technology

6 ECTS credits (4 credits)

Objective: to give students a basic understand-

ing of computing concepts, to introduce students to common business information technology

Content: basics of computer hardware: the students will familiarize themselves with the use of computer hardware, operating systems: to introduce students to the most common operating systems, desktop tools: during the sessions students will learn the basics of word processing and spreadsheets, network services - Internet: to introduce the student to the use of e-mail and world wide web, the students will make their own home pages, to provide students with good knowledge in using spreadsheets in financial and economical tasks

Teaching: lectures 90 hours, assignments 70 hours

Assessment: continuous assessment 30 %, test in computing skills 70 % Support material: hardware and software manuals, additional material will be submitted during the sessions

181047 Law

3 ECTS credits (2 credits)

Objective: 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

Content: introduction to legal thinking: the significance of legal order, different kinds of legal systems, sources of law, legal terms, contracts

Teaching: lectures 48 hours, assignments 72 hours

Assessment: lecture and reading material examination 60 %, assignments 40 %

Indicative reading: will be submitted during the sessions

181048 Microeconomics

3 ECTS credits (2 credits)

Objective: 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 in order to identify the eco-

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nomical aspects of the behaviour of consumers/ households and entrepreneurs

Content: the market and price mechanism: elementary analysis of supply and demand, elasticity and substitution; market and resource allocation: the subject matter of economics: scarcity, choice, allocation, efficiency, comparative economic systems; the theory of consumer choice; business organisation and behaviour; developing the theory of supply; market structure and competition; the theory of international trade, production and costs; the analysis of factor markets: human capital, capital investments and new technology, land and entrepreneurial ability; coping with risk in economic life

Teaching: lectures, assignments and statistics 40 hours; case and workshops 40 hours

Assessment: one written paper, 3 hours 50 %, case and workshops 50 %

Indicative reading: Boyes, William J. & Melvin, Michael: Economics, 4 ed 1999 (part), Parking, Michael: Economics, 5 ed 2000 (part), Begg, David et al.; Economics, 5 ed, London 1997 (part)

181049 Communication in Business

4,5 ECTS credits (3 credits)

Objective: to provide students with indepth 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 business letters, fax and e-mail messages, the students will have exercises in discussing subjects related to companies and writing follow-ups

Assessment: coursework, in and out of class (in class - active participation during the sessions; out of class - satisfactory completion of home assignments) 50 %; and examination

50 % (aural, oral and written)

Teaching: lectures 64 hours, assignments 56 hours

Indicative Reading: Spring-Wallace, English for Corporate Communications. Prentice Hall Regents 1993

Support Material: Powell, Business Matters. Language Teaching Publications 1996, Neale & Haslam: Economics in a business context (the latest edition), Sloman & Stiffie: Economics for Business, The Finnish Statistical Year book; OECD Economic Outlook

181050 Presentation Skills

3 ECTS credits (2 credits)

Objective: to enable the students to express themselves in front of a group, to emphasize 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, classwork includes exercises to improve students' presentation skills and response skills as a member of the audience

Assessment: presentation 50 %; continuous assessment and performance as an audience member 50 %

Teaching: lectures 32 hours, assignments 8 hours

Indicative Reading: submitted during the sessions

181052 Business Across Culture

3 ECTS credits (2 credits)

Objective: to sensitize the student to intercultural differences and similarities in the international business environment and to encourage them to be able to adapt themselves accordingly, 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 through case studies along with group project work to

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be reported orally and in writing, take-home exam

Teaching: sessions; preparation work, writing review papers, group project work, take-home exam

Lectures: 39 hours, assignments 41 hours

Assessment: thorough preparation for discussions; active participation in class; submitting assignments in time. 80 % attendance required

Learning material: selected articles from the following authors: Hofstede Geerd, Hall Edward, Lustig, M.V. and Koster, J., selected articles from the following titles: Jackson, Terence (ed.), Cross-Cultural Management. Butterworth – Heinemann 1995, Thiederman Sondra, Bridging Cultural Barriers for Corporate Success. Lexington Books 1991, for case studies the following book is used: English, Laura M. - Lynn, Sarah, Business Across Cultures - Effective Communication Strategies. Longman 1995, other articles submitted by the instructor, students will be responsible for researching their own material for the group project work and the home exam

181053 Negotiations, meetings and related reporting 4,5 ECTS credits (3 credits)

Objective: to give students the opportunity to learn and practice negotiation skills along with the language used in formal and informal meetings, the students will have the opportunities to practise communicating in all these situations

Content: reading, writing, and discussions about articles concerning negotiation strategies and meeting techniques, as well as intercultural differences/similarities in international circumstances, the students will have the opportunities to practise these strategies and techniques in class and be able to report on them both orally and in writing, in particular, they will be asked to carry out sales negotiations during meetings, 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

Assessment: classroom work 50 %, assignments 50 %

Teaching: lectures 64 hours, assignments 56 hours

Indicative Reading: will be submitted during the classes

181055 Professional Reading, Writing and Discussion Skills 4,5 ECTS credits (3 credits)

Objective: 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 contents in writing, the articles will also be used as the basis 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

Assessment: coursework, in and out of class (in class - active participation during the sessions; out of class – satisfactory completion of home assignments) 25 %; reports 25 %; scientific writing assignment 50 %

Teaching: lectures 64 hours and assignments 56 hours

Reading material: to be submitted during the lessons

181021 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 the view to providing information to management for control and decision-making, to develop an understanding of organizational aspects in managerial accounting, to develop analytical skills related to the problem-solving roles of managerial accounting, to provide students with skills in the budgeting process and the

process of budgetary control, to give the students an indepth understanding of the role that a well-designed accounting system may have in the process of cost management, the main focus is on activity-based cost management, several cases will be introduced and discussed in class

Content: management of costs, overhead cost management, basics of activitybased costing, volume-cost-profit analysis, budgetary control

Teaching: lectures 48 hours, assignments 72 hours

Assessment: one written paper 40 %, assignment 60 %

Literature: Drury: Management Accounting for Business Decisions, Thomson Learning, 2001, Drury: Cost & Management Accounting, Thomson Learning, 2003. Berry, Jarvis: Accounting in a Business Context, Thomson Learning, 1998, Atrill, McLaney: Accounting and Finance for Non-Specialists, Prentice Hall, 2001 Cooper, Kaplan: The Design of Cost Management Systems

181202 Marketing Mix Decisions 3 ECTS credits (2 credits)

Objective: to give students an overview of integrated marketing mix decisions

Content: the concept of marketing mix: components of the marketing mix and marketing environment Product decisions: concept, branding, product life cycle Price decisions: objectives, influencing factors, pricing policies and methods Place decisions: marketing channels, wholesaling, retailing and physical distribution Promotion: promotional mix (advertising, personal selling, public relations and sales promotion)

Teaching: lectures 32 hours, assignment 48 hours

Assessment: examination 60 % and assignments 40 %

Literature: Jobber David: Principles and Practice of Marketing. Latest edition!

181203 Market Research 3 ECTS credits (2 credits)

Aims: to provide an introduction to the theory and practise of market research, to get the students acquainted with the options facing a person who wants to gather marketing research information i.e. different forms of research methods, principles, procedures and tools Content: the role and methods of market research, the stages in the marketing research process, planning and carrying out marketing research: survey design, analysis and interpretation of data, writing a report and preparing a presentation

Teaching: lectures 32 hours, assignments 48 hours

Assessment: classwork 40 % and research project 60 %

Literature: Kumar V., Aaker D. A., Day G.S: Essentials of Marketing Research, 1999

181024 Financial Statement Analysis 3 ECTS credits (2 credits)

Aim: to learn the interpretation of financial statements and how accounting data is used for analytical purposes

Content: financial accounting analysis, profitability, funds management, liquidity and solvency, inter-firm comparison, gearing ratios, investment ratios, performance measurement, analyzing the statement of cash flows Assessment: coursework 50 %, examination 50 %

Teaching: lectures 32 hours, assignments 48 hours

Literature: Walton: Financial Statement Analysis- an International Perspective, Thomson Learning, 2000. Schoenebeck: Interpreting and Analyzing Financial Statements, Prentice Hall, 2001 McMenamin: Financial Management – An Introduction, Routledge, 1999

181210 Human Resource Management 3 ECTS credits (2 credits)

Objective: to provide students with knowledge that management, especially leadership ability, is the force that holds everything in a

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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
Assessment: lectures and reading material examination 70 %, assignment 30 %

Teaching: lectures 26 hours, assignments 54 hours

Indicative Reading: Human Resource Management, Graham H.T., Bennet R., 9th ed. ISBN 0 273 63401 1, Business Leadership, Viv Shackleton, 1995, ISBN 0-415-12678-9

181211 Supply Chain Management Strategies 3 ECTS credits (2 credits)

Aim: to give students an in-depth knowledge of the Integrated Supply Chain Process

Content: approaches to strategic management
Strategic management of supplier relationships, inventory management, transportation management, logistics reengineering, alternative logistics strategies, warehouse management and warehousing strategies, logistical organizational development, beyond structure: virtuality and transparency, global logistics, strategic Logistics Plan, future logistics challenges

Teaching: lectures and case discussions 48 hours, assignments 32 hours

Assessment: case reports and presentations, class participation, assignments 60 %, written exam 40 %

Indicative reading: Gattorna J.L. & Walters D. W. 1996. Managing the Supply Chain: A Strategic Perspective. MacMillan Press. Lontoo. 360 p, Saunders M. 1994. Strategic purchasing and supply chain management. Pitman Publishing. London 299 p, Lambert D. & Stock J. 1993. Strategic Logistic Management. Irwin, Illinois. 862 p

181212 Macroeconomics 3 ECTS credits (2 credits)

Objective: to describe the economy as a whole: economic equilibrium from the perspective of macroeconomics, the purpose is to initiate the circular flow of economic activities of the economy and its units and connection to other economies in order to evaluate the influence of macroeconomics variables on the firm's performance and economic forecasts

Content: introduction to macroeconomics and national income accounting: the determination and measures of national income accounting; aggregate demand and supply, government economic policies: Keynesian theory and fiscal policy; monetarist theory and policies: money, banking and the monetary system; exchange rates; determination of economic growth and productivity; business cycle; inflation; unemployment; price level and the speed of adjustments; taxes and public spending; industrial policy and competition policy; balance of payments; welfare economics; problems of developing countries

Teaching: lectures, assignments & statistics 40 hours; case-work and presentation

Assessment: one written paper, 3 hours 50 %, case and workshops 50 %

Indicative reading: Brandley, R. – Schiller: Essentials of Economics; ISBN: 0-07-116884-2, Begg, David et al.; Economics, 5 ed, London 1997 (part), Boyes, William J. & Melvin, Michael: Economics, 4 ed 1999 (part), Parking, Michael: Economics, 5 ed 2000 (part), Neale & Haslam: Economics in a business context (the latest edition), Samuelson-Nordhaus: Economics. Mc Graw Hill, Sloman & Stliffe: Economics for Business, The Finnish Statistical Year book; OECD Economic Outlook

181213 Financial Management and International Finance 3 ECTS credits (2 credits)

Objective: to enable students to utilise financial data to assist management in performing the management functions and to survey the

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practical aspects of financing of international operations

Content: sources of finance and financial institutions, cost of capital and capital structure, capital budgeting, risk and capital asset pricing model, financial ratios, management of working capital, stock market investments, the structures of financing from an EU point of view

Assessment: two assignments á 25 %, examination 50 %

Teaching: lectures 56 hours, assignments 64 hours

Literature: Rosenberg, Harris: Finance for non-financial managers, 2001, McMenamin: Financial Management – An Introduction, Routledge, 1999

Reading material: 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

181214 Law of Obligations 3 ECTS credits (2 credits)

Objective: 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, assignments 40 hours

Assessment: lectures and reading material examination 60 %, assignments 40 %

Indicative reading: will be submitted at the beginning of the lectures

181220 Internationalization of companies 3 ECTS credits (2 credits)

Objective: to give students an overview of the internationalization process including a description of various factors that have an impact on the choice of international business operations

Content: reasons for going international, roadblocks to going international, international business operations, sources of information, foreign trade organisations

Assesment: examination 60 % and assignments 40 %

Literature: Koslow: Business Abroad. Gulf Publishing Company, 1996, Chinkota, Ronkainen: International Marketing. Harcourt College Publishers. 2000

181221 Scandinavian Business Context 3 ECTS credits (2 credits)

Objective: to provide students with an understanding of the peculiar economic and regional factors in the Scandinavian region which influence and constrain managerial decisions in Finnish firms, at the end of this course students should be able to analyse different business areas, students will obtain a basic knowledge of topics in comparative politology, students should appreciate the influence of the European Union and the European Monetary Union on macroeconomic factors which affect businesses, special attention will be drawn to the Finnish business system

Content: tools of business context analysis – economics, comparative politology and statistics; Finland in figures; the Finnish economy; political climate analysis; welfare state issues; business system analysis – sociology of business organisations; Scandinavia in the European Union

Teaching: lectures 28 hours and assignments 52 hours

Assessment: written exam 50 %, assignments 50 %

Literature: to be submitted during the lessons



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181222 International Marketing 3 ECTS credits (2 credits)

Objective: to provide the students with the understanding of the scope of international marketing and the need for thorough evaluation of the international environment prior to the selection of markets, the students are able to construct a marketing plan including product, price, distribution and promotion decisions

Content: choosing the target market: international environment, selecting process, export plan: content, international marketing mix: product, price (including the terms and ways of payment), place (including the terms of delivery)

Teaching: lectures 32 hours, assignments 48 hours

Assessment: one written paper 40 % and assignments 60 %

Literature: Jobber David: Principles and Practice of Marketing, Chinkota, Ronkainen: International Marketing. Harcourt College Publishers. 2000

181223 Strategic Management Accounting 3 ECTS credits (2 credits)

Objective: to provide information on the recent trends and tools of management accounting and to familiarise students with strategic management accounting

Content: modern strategic management and its implications to management accounting: the Balanced Scorecard (BSC), performance measurement, quality costs, Economy Value Added (EVA)

Teaching: lectures 32 hours and assignments 48 hours

Assessment: examination 50 %, assignments 50 %

Literature: Anthony- Govindarajan: Management Control Systems, McGraw-Hill, 2001. Merchant-Van Der Stede: Management Control Systems, Prentice Hall, 2003. R.S.Kaplan, T.Johnson: Relevance Lost! The Rise and Fall of Management Accounting, T. Johnson: Relevance

Regained: from top-down control to bottom-up empowerment, Kaplan, Atkinson: Advanced Management Accounting, Prentice Hall, 1998.

181224 Foreign Trade 1,5 ECTS credits (1 credit)

Objective: to develop in the student a basic understanding and skills concerning the practical issues in the foreign trade operations of a company

Content: stages of export and import procedure, trade contract, international delivery terms: incoterms as a part of a trade contract, documents: invoices, certificates of origin, customs procedure: using a customs declaration in different situations

Teaching: lectures 20 hours, assignments 20 hours

Assesment: exercises and assignment 100 %
Literature: will be announced at the beginning of the course

181230 International and European Community Law 3 ECTS credits (2 credits)

Objective: to consider the evolution and development of the European Community and the main branches of 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,

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competition law and policy

Teaching: lectures 40 hours, assignments 40 hours

Assessment: lectures and reading material examination 60 %, assignments 40 %

Mandatory reading: "European Union Law"-textbook, 1999, Collaborators/authors: Pohjois-Savo Polytechnic Business and Administration, Varkaus and Instituto Tecnico Commerciale Statale "Enrico Tosi", Italy

181231 Private International Law 3 ECTS credits (2 credits)

Objective: 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 (Vienna convention), Compensation for Damages, Dissolving legal disputes: legal proceedings and courts, arbitration,

Enforcement: conventions
Teaching: lectures 40 hours, assignments 40 hours

Assessment: lectures and reading material examination 60 %, assignments 40 %

Indicative reading: will be submitted at the beginning of the lectures

181232 International Economics 3 ECTS credits (2 credits)

Objective: the purpose is to examine the activities of the international economy and the factors influencing its development in order to give the student an understanding of living in a global economy and to plan international trade, investment and finance activities from the perspective of the firm, to discuss key economic issues that influence international business and to analyse changes in the world economy and their impact

Content: the economic environment: international trade and commercial policy; markets for investments and the world financial environment: capital and money; economic integ-

ration and cooperative agreements; EU and EMU roles in international economics

Teaching: lectures 24 hours, project work (independent) and oral presentation

Assessment: lectures and reading material examination 50 %, oral presentation and written report 50 %
Indicative reading: Daniels, John D. & Radebaugh, Lee H.: International business environment and operations, 9 ed, 2000; Carbaugh: International Economics; A collection of articles and topics; OECD- Economic Outlook

181233 International Accounting 3 ECTS credits (2 credits)

Objective: to introduce students to the problems of international accounting and reporting, to improve the knowledge of accounting requirements and practices at the national level between countries, an understanding of factors influential in the policy-making process in other countries may help to understand better the potential for/ or limitations to harmonization and to the use of standards, for example, in multinational companies

Content: international diversity in financial accounting and reporting practices in the main EU countries and in the US, Consolidated group accounts, 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)

Assesment: coursework, in and out of class 50 % and examination 50 %

Teaching: lectures 30 hours, assignments 50 hours

Literature: Christopher Nobes and Robert Parker, Comparative international accounting, Prentice Hall, New York 2000, research papers, articles (to be given by the lecturer)

Support material: Roberts, Weetman, Gordon: International Accounting – A Comparative Approach, Pitman Publishing, Alexander, D., Comparative International Accounting, San

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Diego: Harcourt Brace, 1996, Radebaugh, Lee H. and Gray, S.J., International Accounting and Multinational Enterprises, 4th ed. New York: John Wiley, 1997, Schweikart, Jim and Gray, S.J. and Roberts Clare, International Accounting: A Case Approach, New York: McGraw-Hill, 1995

181234 Business and Environmental Ethics

1,5 ECTS credits (1 credit)

Aims: to increase the students' awareness of ethical issues regarding business and environment by studying and discussing related issues
Content: reading articles regarding business and environmental ethics, introducing related topics for discussions either orally or in writing, discussing related topics in groups
Teaching: participating in class sessions in class, preparation work for class discussions and writing assignments
Assessment: thorough preparation for discussions; active participation in discussions in class; submitting assignments in time, 80 % attendance required
Learning material: selected articles from various sources discussing ethical and environmental issues, other current articles submitted by the instructor during sessions; students' own choice of articles for assignments

181241 Qualitative Methods 3 ECTS credits (2 credits)

Objective: to familiarise students with qualitative research methods
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, the students will be introduced to writing coursework, the purpose of which is to deepen their understanding of one concrete research method
Teaching: lectures and discussions 30 hours, literature and coursework 50 hours
Assessment: reading material examination 50 %, lecture attendance and assignments 50 %
Literature: Pentti Alasutari: Qualitative met-

hod and Cultural Studies, Robert K. Yin: Case Study Research, Design and Methods
Support Material: Mathew B. Miles, A. Michael Huberman: Qualitative Data Analysis, Robert E. Stake: The Art of Case Study Research, Norman K. Denzin, Yvonna S. Lincoln (ed.): Strategies of Qualitative Inquiry

181242 Quantitative Methods 1,5 ECTS credits (1 credit)

Objective: to enable students to acquire the necessary skills to apply statistical and mathematical techniques in business problems, students will learn how to use SPSS software as a tool for analyzing and presenting statistical information
Content: data Screening and transformation, descriptive statistics, correlation and T-tests, other analysing methods, reporting and presenting statistical information
Literature: Sheridan J. Coakes, Lyndall G. Steed: SPSS – Analysis without Anguish
Assessment: will be agreed at the beginning of the course

181243 Applications in Business Administration 4,5 ECTS credits (3 credits)

Objective: to give students the ability to use spreadsheets effectively and the ability to use most common business applications
Content: presentation programs and computer graphics, built in functions in spreadsheets, statistical tools, pivot table, the use of solver application, creating macros and programming with macro language, creating and using databases, the use of integrated applications in office work (Scala 1,5 cu)
Teaching: lectures 60 hours, assignments 60 hours
Assessment: continuous assessment, test and assignment
Reading material: will be submitted at the beginning of the lessons

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Business Management Curriculum Study Modules

Code	Course	1st year		2nd year		3rd year		4th year		Total ECTS
		autumn	spring	autumn	spring	autumn	spring	autumn	spring	
	BASIC STUDIES	28,5	19,5	2,0	5,5	4,5				60,0
181040	Tutoring	1,5								
181041	Marketing	4,5								
181042	Information Retrieval and E-learning	3,0								
181043	Management and Society I	3,0								
181044	Fundamentals of Logistics		3,0							
181045	Financial Accounting and Taxation	3,0	3,0							
181046	Information Technology	3,0	3,0							
181047	Law		3,0							
181048	Microeconomics	3,0								
181049	Communication in Business	3,0								
181050	Presentation Skills	4,5								
181051	Business Mathematics		3,0							
181052	Business Across Culture				3,0					
181053	Negotiations, Meetings and Related Reporting					4,5				
181054	Language Studies		4,5							
181055	Professional Reading, Writing and Discussion			2,0	2,5					
	PROFESSIONAL STUDIES		6,0	24,0	18,0	27,0				75,0
	Planning a Business									
181200	Management and Society II		3,0							
181201	Management Accounting			4,5						
181202	Marketing Mix Decisions		3,0							
181203	Market Research				3,0					
181204	Financial Statement Analysis				3,0					
	Strategic development									
181210	Human Resource Management				3,0					
181211	Supply Chain Management Strategies					3,0				
181212	Macroeconomics					3,0				
181213	Financial Management and International Finance					3,0				
181214	Law of Obligations					3,0				
	International Business Management									
181220	Internationalization of Companies			3,0						
181221	Scandinavian Business Context				3,0					
181222	International Marketing				3,0					
181223	Strategic Management Accounting					3,0				
181224	Foreign Trade				1,5					
	Multinational Business Environment									
181230	International and EC Law					3,0				
181231	Private International Law			3,0						
181232	International Economics					3,0				
181233	International Accounting					3,0				
181234	Business and Environmental Ethics				1,5					
	Methodological and Language Studies									
181240	Statistics			3,0						
181241	Qualitative Methods					3,0				
181242	Quantitative Methods			1,5						
181243	Applications in Business Administration			4,5						
181244	Language Studies			4,5						
	ELECTIVE STUDIES	3,0	6,0	6,0	6,0	6,0	3,0			30,0
		3,0	6,0	6,0	6,0	6,0	3,0			
	PRACTICAL TRAINING					30,0				30,0
	Supervised/unsupervised					30,0				
	BACHELOR'S THESIS						15,0			15,0
							15,0			
	TOTAL ECTS CREDITS									210,0

NB: All information given here is preliminary and should be checked from the educational unit.

DEGREE PROGRAMME IN BUSINESS INFORMATION TECHNOLOGY

Bachelor of Business Administration

Degree programme in Business Information Technology 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).

All the studies will be carried out in English.

The teaching methods are lectures, seminars, project and teamwork, exercises, independent work and assignments. Modern information technology is available for studying. 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 further developing information systems
- Knows the application possibilities, limitations and program development in data processing
- Knows how to purchase a computer system and make agreements concerning it
- Is capable of handling databases and data networks

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 information society technology, mathematical-technical information technology, business studies and mathematics. Through these studies the students will achieve expertise in data processing and understand the potential and problems of information technology.

Outline of studies

291000 Orientation Studies 3 ECTS credits (2 credits)

Objective: to introduce the structure, content and implementation of the Business Information Technology education, the course highlights the goals, the outlines and the prospective professions and gives introduction to effective studies, to get familiar with information sources offered by Kemi-Tornio Polytechnic
Content: studying environment, studying programs, organising studies, library services, information services and information retrieval, e-learning
Teaching: contact hours 40 hours and assignments

Assessment: attendance

Literature: study guide, www.tokem.fi

291001 Project and Teamwork 3 ECTS credits (2 credits)

Objective: to improve student's ability to work in groups, teams and projects
Content: project planning, project administration, leading a project, working in a team, reporting and presentation of project plan and results, the use of project management software, evaluation

Teaching: contact hours 42 hours, assignments 38 hours

Assessment: assignment 80 %, a project work and journal; active participation in classroom
Literature: to be submitted during the lessons

291002 Information Technology 4,5 ECTS credits (3 credits)

Objective: 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, HTML
Teaching: lectures 50 % and exercises 50 %
Assessment: lectures and test 70% and assignments 30%

Literature: to be submitted during the lessons

291003 Application Programs 7,5 ECTS credits (5 credits)

Objective: students achieve an extensive and comprehensive knowledge of the most common application programs and are able to use them in studies and work
Content: word processing, spreadsheets, databases, presentation and publication tools, graphics
Teaching: contact hours 112, exercises and assignments 88 hours

Assessment: test 50 % and assignments 50 %
Literature: to be submitted during the lessons

291004 Programming I 7,5 ECTS credits (5 credits)

Objective: to learn the basic idea of programming, how to design, build and test computer programs by using programming and testing tools in a third generation programming language environment.

Content: program structure, programming methods, the bases of language; libraries, variables, arrays, data types, input/output functions, decisions, loops, pointers and dynamic memory allocation, programming environment, compiling and linking

Teaching: lectures 50 % and exercises 50 %
Assessment: test 70 % and assignments 30 %
Literature: will be submitted during the lecture.

291005 Information System Analysis and Design

7,5 ECTS credits (5 credits)

Objective: to give an overview of the system design and planning process, approaches within system design and the use of the most common description methods and techniques
Content: developing information systems; requirements analysis and system design, system development models, methods, tools, instructions and construction stages

Teaching: lectures 60 % and exercises 40 %
Assessment: test 40 %, self-supervised work 30 %, active participation 30 %

Literature: Roger S. Pressman: Software Engineering, A Practitioner's Approach, McGraw-Hill, 2000.

291011 Professional Reading, Writing and Discussions in English 3 ECTS credits (2 credits)

Objective: 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

291012 Coping with Presentations, Meetings, Negotiations and Business Contacts in English

3 ECTS credits (2 credit units)

Objective: to provide students with knowledge and skills in the English language for pres-

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cial features of these operating systems

Content: Windows Server operating systems, system management, data operators tasks, data security, directory services.

Teaching: lectures and exercises, 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: to be submitted during the Lessons and according to the operating systems.

292006 Data Communication 4,5 ECTS credits (3 credits)

Objective: the course will teach the fundamentals of data communications, students learn different ways of data communication between computers, the aim is also to familiarize students with the Internet and its possibilities

Content: fundamentals of data communication: topologies, protocols, network devices and components, data network services, networking with PCs, the Internet and its possibilities, solutions in the Internet

Teaching: lectures and exercises 42 hours

Exercises: install modems and adapters, direct cable connections and Internet connections, install PCs into a local area network

Assignments: 38 hours

Assessment: test

Literature: to be submitted during the lessons

292007 Data Network Construction 3 ECTS credits (2 credits)

Objective: how to plan and construct different types of networks and how to dimension and test networks according to customers' needs

Content: network planning, installation and dimensioning networks, configuring and updating network, supporting networks and security

Teaching: contact hours 42 hours, assignments 38 hours, Assessment: test

Literature: to be submitted during the lessons

292008 Human – Computer Interaction 3 ECTS credits (2 credits)

Objective: to learn how to design and implement high quality user interfaces

Content: developing a user interface, requirements, principles, tools, ergonomics

Teaching: lectures 60 % and exercises 40 %

Assessment: test 40 %, self-supervised work 30 %, active participation 30 %

Literature: Jakob Nielsen: Designing Web Usability, New Riders Publishing, 2000, Alan Cooper: The inmates are running the asylum, SAMS, 1999, ISBN 0-672-31649-8

292009 System Construction 4,5 ECTS credits (3 credits)

Objective: student can define solution architectures, apply data models and is capable to make logical and physical system design

Content: defining solution architectures: database architecture, data system architecture, hardware architecture and humanware solution, documentation tools, CASE-tools, feasibility testing

Teaching: lectures 60 % and exercises 40 %

Assessment: test 40%, self-supervised work 30%, active participation 30%

Literature: Ben Ezzell: MCSD: Analyzing Requirements and Defining Solution Architectures, Sybex 1997. Roger S. Pressman: Software Engineering, A Practitioner's Approach, McGraw-Hill, 2000.

292010 Object-Oriented System Construction 4,5 ECTS credits (3 credits)

Objective: to introduce the student to object-oriented analysis, design and theory of systems engineering, basic concepts and design methods

Content: unified modeling language UML, use case diagram, sequence, diagram, class diagram, statechart diagram, collaboration diagram, activity diagram, component diagram, deployment diagram, CASE-tool supporting UML

Teaching: lecture 40 hours, assignments 40 hours and literature 40 hours

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Assessment: lecture 20 %, self-supervised work 30 %, test 50 %

Literature: handout

292011 Strategic Planning 3 ECTS credits (2 credits)

Objective: to get students familiar with the skills and abilities needed for strategic management of the IT enterprise

Content: management and administration of the IT company, organizational learning, strategic planning and leadership, outsourcing, virtual organizations, electronic document management, innovations and strategic development, future scenarios of the software industry, total quality management

Teaching: lectures 40 hours, assignments and reading materials 40 hours,

Assessment: lecture and reading material examination 70 %, assignment 30 %, Literature: submitted at the beginning of the course

292012 Law 3 ECTS credits (2 credits)

Objective: 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

Assessment: lecture and reading material test 60 %, assignments 40 %

292013 Mathematics and Statistics 4,5 ECTS credits (3 credits)

Objective: 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 devi-

ation; 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: to be submitted during the lectures

292014 Scientific Writing in English 4,5 ECTS credits (3 credits)

Objective: 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 40 hours and assignments 80 hours

Assessment: assignment

Literature: to be submitted during the lessons

292015 Research Studies 3 ECTS credits (2 credits)

Objective: 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 utilize 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: to be submitted during the lessons

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Business Information Technology Curriculum Study Modules

	1st year		2nd year		3rd year		4th year		Total ECTS
	ECTS		ECTS		ECTS		ECTS		
	autumn	spring	autumn	spring	autumn	spring	autumn	spring	
BASIC STUDIES	30,0	30,0							60,0
291000 Orientation Studies	3,0								
291001 Project and Teamwork	3,0								
291002 Information Technology	4,5								
291003 Application Programs	7,5								
291004 Programming I		7,5							
291005 Information System Analysis and Design		7,5							
291011 Professional Reading, Writing and Discussions in English	3,0								
291012 Coping with Presentations, Meetings, Negotiations and Business Contacts in English		3,0							
291013 Swedish for Finnish/Finnish for Foreigners		3,0							
291014 Business Enterprise Project	9,0	9,0							
PROFESSIONAL STUDIES	4,5		24,0	22,5	24,0				75,0
292000 Programming II			7,5						
292001 Programming III				7,5					
292002 Programming Project				6,0					
292003 Databases				7,5					
292004 Operating Systems		4,5							
292005 Data Network Operating Systems					4,5				
292006 Data Communication			4,5						
292007 Data Network Construction					3,0				
292008 Human - Computer Interaction					3,0				
292009 System Construction			4,5						
292010 Object-Oriented System Construction				4,5					
292011 Strategic Planning					3,0				
292012 Law					3,0				
292013 Mathematics and Statistics				4,5					
292014 Scientific Writing in English					4,5				
292015 Research Studies					3,0				
BACHELOR'S THESIS							15,0		15,0
Bachelors's thesis							15,0		
PRACTICAL TRAINING						30,0			30,0
293010 Practical training (unsupervised)						12,0			
293020 Practical training (supervised)						18,0			
ELECTIVE STUDIES									30,0
294000 C++ Certificate			7,5		7,5				
294001 A+ Certificate			7,5		7,5				
294002 Windows 200x Server Certificate				7,5					
294003 Linux+ Certificate			7,5		7,5				
294004 SQL Server 200x Certificate			7,5		7,5				
294010 Epc/C++ Programming			7,5		7,5				
294011 XML				3,0					
294012 J2ME			3,0		3,0				
294013 Mobile Technologies and Services				3,0					
294020 Visual Basic Programming				3,0					
294030 Hypertext Documents			3,0						
294040 Multimedia			4,5		4,5				
294055 Multimedia Programming				3,0					
294060 Internet Marketing				3,0					
294070 Electronic Business				3,0					
294080 Project Administration Tools			3,0		3,0				
294090 Business Law			3,0		3,0				
TOTAL ECTS CREDITS									210,0

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TECHNOLOGY AND ENGINEERING

Kemi Institute of Technology, the predecessor of the Unit of Technical Education, was established in 1960; now the unit has a staff of 50 persons and the number of students is about 650.

The Unit of Technical Education in Kemi trains technological experts for both domestic and international assignments in the fields of Mechanical Engineering, Electrical Power Engineering, Automation, Electronics Production Technology, Product Development and Information Technology. In the autumn 2004 a new programme of Industrial management will be opened.

The unit is situated in the Digipolis technology park and surrounded by hi-tech companies with expertise in various fields of technology. The unit has run the international Bachelor of Engineering degree programme in since the early 80s. B.Eng.

The unit has well-equipped laboratories for all its specialisation areas: machine construction, electrical power engineering, automation, information technology, optical measurement and photolithography. The international programme is a 4-year degree programme and has about 60 students. The tuition is given completely in English.

The unit has invested resources especially in product development in the fields of microelectronics and robotics. The computer classes, which have over 200 PCs, are open outside the scheduled hours for the students to work with their assignments. All the PCs are connected to the Internet.

The library provides students with wide range of material for both study and leisure. The student union has several clubs and for those interested in sports there is a good gym for working out and playing basketball, for example.



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DEGREE PROGRAMME IN INFORMATION TECHNOLOGY

In the Degree Programme of Information Technology the tuition is given completely in English. The students will specialise either in software design or in digital electronics hardware design. Starting from the autumn 2004 studies will focus on software planning methodologies and programming. In the education special emphasis is laid on learning the construction of reliable hardware related real time applications. Also the Internet programming and mobile devices programming will be introduced to the students.

The project form curriculum consists of, for example, digital electronics design, software design, signal theory, mathematics, business & management, laboratory exercises, computing, physics and project work. The duration of the studies is 4 years and the extent of credits 240 ECTS credits/160 credits.



The degree programme comprises the following main elements: Basic Studies 75 ECTS credits, Professional Studies 57 ECTS credits, Line-specific Professional Studies 48 ECTS credits, Elective Studies 15 ECTS credits and Bachelor's Thesis 15 ECTS credits. The IT 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 IT 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 the closing dates for applications from the EU and outside EU countries can be checked from the web. Please check the programme's web pages for this information. The application forms can be obtained from the unit or by e-mail: applications@tokem.fi.

Programme description

In the project-based curriculum about half of the studies are carried out in projects which all follow the theme of the term. The

other half of the studies is undertaken by means of traditional lectures, tutorials and home assignments.

In the first year, the project teams consist of 4-5 students, the team size growing smaller during the years. Projects are quite large (8 cu or 12 ECTS credits) and every project is multidisciplinary, covering the content of several traditional courses. Typically the project is supported by two courses with lectures and tutorials in close connection to the project. In addition, each term also includes 2 or 3 project-independent courses.

The studies in software engineering specialisation option are focused on software planning methodologies and programming. There is a shortage of skilled software engineers all over the world. In the education special emphasis is laid on learning the construction of reliable hardware related real time applications. To be able to succeed in studies and later in work, the students should be persistent and deliberate and have talents for abstract reasoning. The education in the programme aims at providing the graduates with the skills that enable a career in software design or other expert positions. Due to the multicultural study atmosphere, where all the studies are completed in English the programme will give good educational background for making successful career in international assignments.

The detailed scheduling can later be checked from the unit's web-pages at www.tokem.fi/english/teku.

Outline of studies

312001 Introduction to Team and Project Work

Credits: 2 cu (3 ECTS credits)

Objectives: To familiarise the students with team and project work and the use of PC tools. Contents: Tools of teamwork, basics of project work, report writing and presentation skills, main PC-applications.

Teaching method: Lectures and exercises.

Literature: Will be informed later.

Assessment: Exercises will be assessed on the scale 0 - 5.

312004 Basic Mathematics

Credits: 2 cu (3 ECTS credits)

Objectives: This course is aimed at recalling to the student some basic and central parts of high school algebra in order to make sure student's success in future math courses. Students will be divided into two groups based on their previous knowledge in mathematics.

Content: Review of basic algebraic techniques, some of the most important engineering functions.

Teaching method: Lectures and tutorials.

Assessment: One written exam.

Literature: Croft et al. Engineering Mathematics, Addison-Wesley, 1996, ISBN 0-201-87744-9.

312005 Linear Algebra

Credits: 2 cu (3 ECTS credits)

Objectives: The student understands some of the central mathematical concepts and techniques needed in further courses in mathematics and engineering.

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

Teaching method: Lectures and tutorials.

Assessment: One written exam.

Literature: Croft et al. Engineering Mathematics, Addison-Wesley, 1996, ISBN 0-201-87744-9.

Prerequisite studies: 312004 Basic Mathematics.

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3I2019 DC- circuits

Credits: 2 cu (3 ECTS credits)

Objectives: To learn to analyse and simulate DC circuits as well as to make basic measurements. Contents: 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, induced voltage, RL-transients, storage phase, decay phase, inductors in series and parallel, energy stored by an inductor.

Teaching method: Lectures, exercises and labs
Literature: Introductory Circuit Analysis by Boylestad

Assessment: Written test. Laboratory reports.

3I2014 Introduction to Computer Engineering

Credits: 2 cu (3 ECTS credits)

Objectives: The principal objective of the course is to provide the student with knowledge about the basic operational and structural features of the computer and basics of digital electronics components.

Contents: Short history of computers, an overview of the PC hardware: processor, RAM, mass memory, monitors, principles of computer communication, peripheral devices. Binary, octal, and hexadecimal number systems, use of binary numbers in arithmetical calculations and Boolean arithmetical operations are also covered.

Teaching method: Lectures and tutorials.

Literature: Will be announced later

Assessment: One written exam

3I2001 Introductory Project

Credits: 4 cu (6 ECTS credits)

Objectives: To teach the students to understand how to work in a team and what project work requires as well as practise the use of PC-tools in report writing and presentation creating.

Contents: Depends on the subject of the project.

Teaching method: Supervised project work.

Literature: Will be informed later.

Assessment: Grade on scale 0 – 5. Both group and individual performance is assessed. Evaluation will be based on continuous commitment, project presentations, final report, and group interview.

3I2016 Computer Technology Project

Credits: 4 cu (6 ECTS credits)

Objectives: Students will work in a project to obtain basic understanding about computer technology.

Contents: Students will work assemble and disassemble a PC. Students will also learn how to install operating system and application software, how to make web pages and they learn how they can use shell based operating systems (DOS and Linux). Students will learn basics of HTML when they will publish their web pages in WebCT. Students will have possibility to complete the A+ certificate either by learning them selves or learning by LearnLink. The learning outcome will be documented in the project report. English language: the basic technical structures and vocabulary, team and project work vocabulary, cultural differences, and grammar exercises.

Teaching method: Supervised project work
Literature: Will be provided before the project begins and during the project

Assessment: Grade on scale 0 – 5. Both group and individual performance is assessed. Evaluation will be based on continuous commitment, project presentations, final report, and group interview.

3I2023 Programming I

Credits: 2 cu (3 ECTS credits)

Objectives: To learn the basics of programming. Students will also learn the basic of numerical systems and Boolean operations.

Contents: Algorithms, commenting, variables, simple program, using the variables, operators, flow-control of the execution (structured programming), and modular programming. Teaching method: Lectures and Programming lab tutorials.

Literature: Will be provided later.

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Assessment: Test and labs assessed on the scale 0 - 5.

Prerequisite studies: 3I2014 Introduction to Computer Engineering

3I2015 Operating Systems

Credits: 2 cu (3 ECTS credits)

Objectives: Introduction to Operating Systems. Contents: Processes, threads, scheduling, synchronization, deadlocks, memory allocation. Teaching method: Lectures, tutorials and computer labs.

Literature: Will be provided later.

Assessment: Will be provided later

3I2018 AC- circuits

Credits: 2 cu (3 ECTS credits)

Objectives: To learn to analyse and simulate AC circuits under different conditions-steady state and transient as well as to make basic measurements.

Contents: Frequency response of basic elements, frequency response of series AC circuits, absolute value and phase angle, frequency response of parallel AC-circuits, series resonance, resonant frequency, quality factor, selectivity, bandwidth, cut-off frequencies, parallel resonance, unity power factor, maximum impedance, filters - low-pass, high-pass, band-pass, band-stop and graph plotting.

Teaching method: Lectures, exercises and labs
Literature: Introductory Circuit Analysis by Boylestad

Assessment: Written test. Laboratory reports.

3I2003 Information Retrieval

Credits: 2 cu (3 ECTS credits)

Objectives: The course will introduce the student to information searching. The virtual learning environment is also introduced.

Contents: Different ways to search the information, process of information searching, databases, Internet and information search, evaluation of the search results, guidance to network learning and learning environments.

Teaching method: Lectures.

Literature: Will be informed later.

Assessment: Class participation and one written exam

3I2011 Swedish

Credits: 2 cu (3 ECTS credits)

Objectives: The course will focus on preparing the students for the civil servant exam for engineers in Swedish language. The instruction language is Finnish.

Contents: Technology and business-related texts, discussions, presentations, reports. Grammar exercises.

Teaching method: Lectures, tutorials, and computer-aided laboratory work

Literature: Will be announced later

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

Prerequisite studies: Intermediate or higher course in Swedish in Finnish high school or equivalent skills.

3I2012 Introductory Finnish

Credits: 2 cu (3 ECTS credits)

Objectives: The course will introduce the student to Finnish language and help them to manage in everyday situations.

Contents: Some basic structures of Finnish, grammar exercises, texts and vocabulary about everyday life.

Teaching method: Lectures.

Literature: Will be informed later.

Assessment: Class participation and one written exam

3I2013 Intermediate Finnish

Credits: 2 cu (3 ECTS credits)

Objectives: The course will deepen the knowledge of Finnish language.

Contents: Grammar exercises, texts of current interests, discussions

Teaching method: Lectures

Literature: Will be informed later.

Assessment: Class participation and one written exam

Prerequisite courses: 3I2012 Introductory Finnish

THE INTERNATIONAL PROGRAMMES

312020 Electronics

Credits: 2 cu (3 ECTS credits)

Objectives: To learn to analyse and simulate transistor and OP-amplifier circuits, small signal amplifiers, filters and power amplifiers.

Contents: Diodes, transistors and OP-Amps used in amplifiers and filters.

Teaching method: Lectures and exercises

Literature: Electronic devices by Floyd

Assessment: Written test. Simulation reports.

312021 Electronics Project

Credits: 8 cu (12 ECTS)

Objectives: To learn to analyse, simulate, construct and test transistor and OP-amplifier circuits, small signal amplifiers, filters, power amplifiers and AC- circuits. Other objectives will be specified later.

Contents: Diodes, transistors and OP-Amps used in amplifiers and filters as well as transformers, fuses, varistors, cooling of semiconductors, switches, power cords, grounding and electric safety. English language: project related English studies, skills, employment; The Job for me, and grammar exercises.

Teaching method: Lectures, exercises and supervised laboratory work

Literature: Electronic devices by Floyd, Introduction to Circuit analysis by Boylestad

Assessment: Grade on scale 0 – 5. Both group and individual performance is assessed. Evaluation will be based on continuous commitment, project presentations, final report, and group interview.

Prerequisite studies: 312019 DC- circuits.

310021 Digital Electronics Project

12 ECTS credits (8 credits)

Objectives: students will work in a project to deepen their understanding of digital electronics and microcontrollers

Contents: project includes both digital electronics hardware design and microcontroller software design, the students will work with the controller interfacing with FPGA and application development using both schematic entry and introductory VHDL, at the same time

the controller software will be developed in the language C

Teaching method: Supervision hours.

Literature: will be provided before the project begins and during the project

Assessment: both group and individual performance are assessed, evaluation will be based on continuous commitment, project presentations, final report, and group interview
Prerequisite studies: 310005 Analogue Electronics Project

310022 Measurement techniques

3 ECTS credits (2 credits)

Objectives: students will study both theoretical background and practical technique to measurements in physics, electricity and electronics. Some of the most important methods described in the course are studied during laboratory experiments.

Teaching method: Lectures and laboratory experiments.

Literature: Principles of Measurement and Instrumentation, Prentice Hall by Allan S. Morris

Assessment: one written exam

Prerequisite studies: 312010 Basic Mathematics, 312011 Linear Algebra, 310012 Physics 1, basic electronics.

310023 Digital Electronics

3 ECTS credits (2 credits)

Objectives: students will study the basics of combinatorial logic circuits, Boolean algebra, digital electronics and introduction to sequential logic circuits, basics of VHDL are included in the course, and the students will prepare themselves for subsequent studies in digital electronics and computer sciences

Contents: digital signals, analogue signals, Boolean algebra, creating and minimising combinatorial logic expressions, implementing combinatorial logic using gates, basic combinatorial logic applications: encoders, decoders, adders, and introduction to VHDL and FPGA-circuits and the ALTERA Max+Plus II tool

Teaching method: 40 hours of lectures and tutorials

THE INTERNATIONAL PROGRAMMES

Literature: textbook: Fundamentals of Digital Logic with VHDL Design, by Brown and Vranesic, McGraw-Hill 2000, ISBN 0-07-012591-0, selected parts

Assessment: one written exam

Prerequisite studies: 310053 Electronics

310024 Microprocessors

3 ECTS credits (2 credits)

Objectives: this course is designed to teach the students the basics of microprocessors, as well as provide them with the knowledge of how to programme the hardware in C

Contents: basic architectures of processors, microcomputer as a hierarchical structure of levels, CPU, RAM, input and output, controllers, with emphasis on the Intel 8051 family, development tools for

controller programming

Teaching method: 40 hours of lectures and tutorials

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

Assessments: one written exam

Prerequisite studies: 310003 Introduction to Computer Engineering

310038 Statistics and Coding Theory

3 ECTS credits (2 credits)

Objectives: the student understands the basic concepts of probability theory and statistics and their applications in information and coding theory and can apply the skills obtained here in his/her later

studies in information theory and coding of messages

Content: basics of probability theory, statistics, information theory and coding theory

Teaching method: 42 hours of lectures and tutorials

Literature: Croft et al. Engineering Mathematics, Addison-Wesley, 1996, ISBN 0-201-87744-9

Carlson: Communication Systems

Prerequisite studies: 310011 Linear Algebra, 310013 Mathematics by Computer Tools.

310039 Signal Theory

3 ECTS credits (2 credits)

Objectives: the student knows the basics of analogue signal processing and has ability to use Matlab independently in the solution of elementary problems in analogue signal processing

Content: basic concepts of signals and systems, especially LTI-systems, impulse response, frequency response, ideal and real analogue filters, modulation (AM and FM)

Teaching method: 42 hours of lectures and tutorials

Assessment: one written exam and an assignment
Literature: Kamen and Heck: Fundamentals of Signals and Systems using Matlab, Prentice-Hall, 1997, ISBN 0-02-361942-2
Prerequisite studies: 310028 Spectral Analysis, foundations of Matlab

310040 Discrete Time Signals

3 ECTS credits (2 credits)

Objectives: the student knows the basic concepts of discrete-time signals and can apply the skills obtained here in his/her later studies in digital signal processing and also at work as a DSP designer

Content: DSP systems and their mathematical models, pole-zero diagrams, stability, frequency response, basics of digital filters, use of Matlab in the processing of discrete-time signals
Teaching method: 42 hours of lectures and tutorials

Assessment: one written exam and an assignment
Literature: Ifeachor and Jervis: Digital signal Processing, A Practical Approach. Addison-Wesley, 1993, ISBN 0-202-54413-X, also material from other DSP textbooks
Prerequisite studies: difference equations, z-transform, parts of signal theory

310041 Project management

3 ECTS credits (2 credits)

Objectives: to give the students basic knowledge about working in project organisations and to offer tools for project management

Contents: project definition, project development, management and decision making, pro-



THE INTERNATIONAL PROGRAMMES

ject organisations, phasing, scheduling, cost and risk management, project management applications

Teaching method: lectures and exercises

Literature: will be announced later

Assessment: exercises will be assessed on the scale 0-5

310042 Introduction to Telecommunications

3 ECTS credits (2 credits)

Objectives: 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 telecommunication systems

Contents: principles of radio and television receivers, pulse carrier and pulse code modulations, noise and error in signal transmission, basics of information theory, simulations and analysis of modulation and transmission systems using PSpice and MathCad or Matlab programmes

Teaching method: 40 hours of lectures and tutorials
Literature: Audio, Video and Data Telecommunications by David Petersen, Mc-Graw-Hill

Assessments: one written exam and assignments
Prerequisite studies: 310008 DC Circuits, 310009 AC Circuits, 1st year and 2nd year mathematics courses

310044 SME-planning Project

12 ECTS credits (8 credits)

Objectives: to teach the students to understand the meaning of business planning in small and medium-sized firms and give students facilities for starting a new firm or for developing an existing company

Contents: the main objectives of planning, searching for the market niche, developing and evaluating the business idea, creating the business plan step by step: company information, management, finance, manufacturing and marketing management

Teaching method: team and project work

Literature: will be announced later

Assessment: both group and individual performance are assessed, evaluation will be based on continuous commitment, project presentations, final report, and group interview

310046 Entrepreneurship and new venture formation

3 ECTS credits (2 credits)

Objectives: to teach the students to understand the levels of entrepreneurship both as an entrepreneur and as an intrapreneur and give the tools for establishing a new company
Content: concepts and forms of entrepreneurship, innovations, patents and licences, legal aspects of a start-up

Teaching method: lectures and exercises

Literature: will be announced later

Assessment: exercises will be assessed on the scale 0-5

310048 Cost management in SMEs

3 ECTS credits (2 credits)

Objectives: to help the student to understand the basics of accounting in an SME and to give the student tools for recognising the factors effecting business productivity

Content: concepts and levels of accounting, cost structure in companies, calculation methods: gross margin and activity-based costing, analysing the calculations

Teaching method: lectures and exercises

Literature: will be announced later

Assessment: test and exercises will be assessed on the scale 0-5

310049 Technology management

3 ECTS credits (2 credits)

Objectives: to describe the skills needed when working as a manager in different levels in a technology-based company

Contents: management requirements, skills and tasks, management techniques, leadership and management, strategic management, management problems

Teaching method: lectures and team work exercises

Literature: will be announced later

Assessment: report and exercises will be assessed on the scale 0-5

THE INTERNATIONAL PROGRAMMES

Information Technology Curriculum Study Modules 2004 – 2005

	Finnish credits/ECTS points	Timing A = autumn, S = spring
Introduction to Team and Project Work		
3I2001 Introductory Project	4	6 A
3I2002 Introduction to Polytechnic studies	2	3 A
3I2003 Information retrieval	2	3 S
Engineering Mathematics		
3I2004 Basic Mathematics	2	3 A
3I2005 Linear Algebra	2	3 A
3I0038 Statistics and coding theory	2	3 S
Swedish/Finnish		
3I2011 Swedish or	2	3 S
3I2012 Introductory Finnish or	2	3 S
3I2013 Intermediate Finnish		
Introduction to Computer Engineering		
3I2014 Introduction to Computer Engi..	2	3 A
3I2016 Computer Technology Project	4	6 A
Programming		
3I2015 Operating systems	2	3 S
3I2023 Programming I	2	3 S
Electric Circuits and Analogue Electronics		
3I2020 Electronics Project	8	12 S
3I2021 Electronics	2	3 S
3I2018 DC Circuits	2	3 A
3I2019 AC Circuits	2	3 S
Digital and Microprocessor Electronics		
3I0021 Digital Electronics Project	8	12 S
3I0023 Digital Electronics	2	3 S
3I0024 Microprocessors	2	3 S
Signals and Systems		
3I0039 Signal theory	2	3 A
3I0042 Introduction to Telecommunications	2	3 S
Technology Management		
3I0041 Project Management	2	3 A
3I0044 SME Planning Project	8	12 A
3I0046 Entrepreneurship and new venture formation	2	3 A
3I0048 Cost Management in SME	2	3 A
3I0049 Technology Management	2	3 A
Digital Signal Processing		
3I0040 Discrete Time Signals	2	3 S

TECHNOLOGY AS BUSINESS – TAB (NON-DEGREE PROGRAMME)

The goal of the programme

The Unit of Technical Education in Kemi-Tornio Polytechnic is situated close to the Digipolis Science Park. Many expanding hi-tech companies are nowadays operating in this area and it enables close cooperation between the unit and the firms. In this region companies continually need skilful and internationally capable employees. Especially engineering students need to obtain a deeper understanding of business thinking – knowledge of this field is also highly valued in hitech companies.

This specialisation programme has been created for meeting the needs of companies and their future employees. With this programme the participants receive information about entrepreneurship in technology-based business, tools for working in demanding projects, experience of international teamwork and contacts with growing hi-tech firms.

Target group

The programme is designed for:

- Engineering students after three years of polytechnic or university studies.
- Students of other disciplines after three years of polytechnic or university studies.
- Employees with a suitable background from the cooperating companies.

Teaching methods and resources

Various teaching methods will be used – lectures, exercises, teamwork and company visits. The TaB programme will be car-

ried out together with the cooperating companies. Some representatives of the hi-tech companies operating in the Science Park are willing to participate in teaching and case analyses. The final project work of the programme will be done for some of the companies and it will be based on a real and current problem.

The structure and contents

The main structure of the programme is as follows:

A. Precourse assignments 1 cu

B. Basic studies 6 cu

C. Specializing studies 9 cu

D. Project work 4 cu

Precending studies

The latest version of course descriptions can be found on our www pages www.tokem.fi/teku/tab

Applications and schedules

The closing date for the applications is 14th November 2004. The application form is available on our www pages. The programme will be started on 1st February 2005 and it ends on 31st May 2005.



Outline of studies

A. Pre-course assignments

1,5 ECTS credits (1 credit)

Objectives: to enable the students to find background information from their own country needed in doing the final project work of the programme

Contents: the main topics can be, for example, company law, marketing statistics, and business finance possibilities

Methods: research report assessed on the scale pass-fail

B. Basic studies

Entrepreneurship in hi-tech firms

1,5 ECTS credits (1 credit)

Objectives: to familiarise the students with the contents and meaning of entrepreneurship in technology-based companies

Contents: the concept of entrepreneurship, the preconditions of entrepreneurship, intrapreneurship, different types of entrepreneurship, entrepreneurship and culture, legal aspects

Methods: lectures, company cases, teamwork

Assessment: test

Creativity and innovations

1,5 ECTS credits (1 credit)

Objectives: to practise creative thinking and problem solving and to familiarise the participant with different product and business ideas

Contents: meaning of creativity, creativity methods, problem-solving methods, product development phases, immaterial property rights

Methods: lectures and exercises

Assessment: test and exercises

Technical project management

3 ECTS credits (2 credits)

Objectives: to learn the tools for effective project management needed in demanding technical projects

Contents: increasing efficiency in WBS, project organisations and teams, resource management, risk management, cost management, time management, project documentation, project tracking, effective utilization of the computer applications

Methods: lectures and exercises, case analysis

Assessment: test and exercises

Business-to-business marketing

3 ECTS credits (2 credits)

Objectives: to clarify the tools needed in building and maintaining customer relations in business-to-business marketing

Contents: environment analysis, understanding customer behaviour, finding out customer needs, marketing strategy, marketing mix, alliances and networks in b-2-b marketing

Methods: lectures, exercises and case studies

Assessment: test

C. Supplementing studies

Leadership in technology-based business

3 ECTS credits (2 credits)

Objectives: to introduce the students to the importance of leadership and to practise the leadership skills needed in modern companies

Contents: meaning of leadership, preconditions of leadership, leadership styles, leadership instruments, leadership problems, leadership and HRM, leadership and organisation structure

Methods: lectures, exercises, case analysis

Assessment: test and exercises

Change management

3 ECTS credits (2 credits)

Objectives: to describe the present environment of modern hi-tech companies and to give examples for managing change

Contents: organisation development and change, internal and external factors of change, process of change, resistance of change, creating commitment to change

Methods: lectures, exercises and case analysis

Assessment: exercises

THE INTERNATIONAL PROGRAMMES

Global business operations

3 ECTS credits (2 credits)

Objectives: to familiarise the students with the possibilities and requirements of international business operations

Contents: requirements of global business, global economy, options for internationalisation, international networks, risks and problems of global business

Methods: lectures, case analysis

Assessment: test

Cross-cultural management

3 ECTS credits (2 credits)

Objectives: to offer tools and models for working in cross-cultural environments

Contents: cultural differences by different theories, habits in different cultures, crosscultural teams, problems in cooperation

Methods: lectures and exercises

Assessment: research report

Visits to science parks and hi-tech companies

1,5 ECTS credits (1 credit)

Objectives: to familiarise the participants with the Multipolis network of specialized science and technology parks, to enable students to become acquainted with local hi-tech companies and their

business conditions, and to offer a chance to create personal networks

Assessment: travel reports

D. Project work

6 ECTS credits (4 credits)

Objectives: to create a general view of the elements of the whole programme and to put to use the information learned Contents: a technology-based business plan or a demanding piece of project

work based on company needs Methods: teamwork and individual work, report writing and presentations

Assessment: research report and presentations



Exchange students in front of the Snowcastle in Kemi.



THE INTERNATIONAL PROGRAMMES

HEALTH CARE

The Unit of Health Care and Nursing provides nearly 400 young people and adults with the tertiary Bachelor level training in Nursing, Public Health Nursing, and Physiotherapy.

The Unit also offers post-registration studies leading to the EU Master's Degree in Health Promotion, the post-registration specialization of studies. The Research and Development pays special attention E-health and Welfare at Work.

The working community can be characterised as caring, easy-going and very efficient. The students have modern equipment at their disposal, there are Internet connections on all the computers, and the library services on the ground floor provide an excellent service with all the latest relevant literature worldwide. There are professional magazines, journals and a wide selection of CD-databases and Electronic journals.

Foreign students have a named international student tutor who provides new students with the study routines and conveys to them their own studying experiences. The student association role in .

The scope of the studies is 210 credits according to the ECTS standard (3,5 years). In the Nordic Study Nursing Programme all instruction is carried out in Swedish and in English.

Our professional training aims are as follows:

- A flexible and broad know-how with an ability to develop the health field and one's own work

- Skills pertaining to promoting health in working communities
- Functional and management skills in the working community
- Research and Development proficiency

Our graduate students will become the next generation of Health Care professionals. They will be employed by the municipalities, federations of municipalities as well as the private sector for health services provision. Our degree programmes offer the students a chance of acting as private practitioners within the health sector.



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THE INTERNATIONAL PROGRAMMES

DEGREE PROGRAMME IN HEALTH CARE - NORDIC STUDIES IN NURSING

Bachelor of Health Care

The goal of the degree programme is to educate health-care professionals, who have got both general and special knowledge in health care and nursing. The studies enable students to work in hospitals and health centres as well as in the private sector and in an international environment.

The extent of the degree programme is 140 credits/ 210 ECTS credits and the duration is 3,5 years. The instruction is given in Swedish and English.

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 offered a good opportunity to promote their personal growth and development also in international environments. The role of the lecturer is that of a resource and the facilitator of the learning process.

The degree programme comprises Basic Studies, Professional Studies and Advanced Professional Studies, Elective Studies and Bachelor's Thesis. Each year includes a period of clinical practice in a specific area and the total portion devoted to practice is 75 ECTS credits (50 Finnish credits). The clinical practice can be done in Finland and abroad. International students can participate in instruction in accordance with their language skills. Methods used by the students and teachers are lectures, seminars, workshops, laboratory work, classroom practice, projects, independent work/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 syllabus for the degree programme in Health Care is currently being revised in accordance with the changes made for the national standards for Health Studies at Polytechnic level. Therefore, there is no detailed description of the courses available.



Students of physiotherapy stretching in a gym.

THE INTERNATIONAL PROGRAMMES

Health Care Curriculum Study Modules

	ECTS CREDITS	
	THEORY	PRACTICE
BASIC STUDIES		
Swedish	3	
English	3	
ADP and E-learning	3	
Physical Exercise	1,5	
Health and Social policy	3	
First aid (1,5+1,5)	1,5	
Nutrition	1,5	
Tutoring	1,5	
Professional Ethics	2,75	
Team Work	2,75	
Statistical Methods	1,5	
PROFESSIONAL STUDIES		
Foundations of Professional nursing 1	4,5	
Fondations of Professional nursing 2	4,5	7,5
Medicinal Calculation	1,5	
Drug Administration Skills	1,5	
Pharmacology	1,5	
Microbiology and Pathophysiology	1,5	
Anatomy and Physiology	6	
Nursing Pedagogic	1,5	
Pulic Health Science	0,75	
Gerontological Nursing	3	
Geriatrics	0,75	
Medical Nursing	3	15
Internal Medicine	0,75	
Surgical Nursing	3	
Surgery	0,75	
Perioperative Nursing	2,25	
Health care of Families		22,5
Health Care of Children and Adolescents	3	
Health care of Women	3	
Health care of Adults	3	
Sexual Health	1,5	
Disablement	1,5	
Psychology	1,5	
Obstetrics	0,75	
Gynaecology	0,75	
Pediatrics	0,75	
Health Education	1,5	
Mental Health care and Work with intoxicant abusers	6	
Psychiatric Nursing	3	
Neuropsychology	1,5	
ADVANCED PROFESSIONAL STUDIES		
Medical-Surgical Nursing	22,5	24
(includes 3 credits of medicine studies and 1,5 credits of psychology)		
BACHELOR'S THESIS		
Nursing Research	3,75	
- quantitative and qualitative research	2,25	
- project work	1,5	
Scientific Writing	0,75	
Independent Work	10,5	



THE INTERNATIONAL PROGRAMMES

SOCIAL SERVICES

The Unit of Social Education and Social Care offers nearly 250 young people and adults training to polytechnical degrees as well as specializing studies such as drama and working instructor training.

The students participate actively in the development of their studying conditions and general comfort and enjoyment. Tutor students do their part in acquainting new students with the studying routines and convey to them their own studying experience. Our working community maintains a warm, cosy and intimate, yet efficient, atmosphere.

The Degree Programme in Social Education and Social Care produces professionals in the social field. The scope of the studies is 210 credits according to the

ECTS standard (3,5 years). The language of instruction is mainly Finnish.

We train 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, and by organisations in the private sector.

Students get a chance to get acquainted with the various working areas of the social field and, according to their choice, to deepen their knowledge in some special area of the field: **working with children and the youth, working with the aged, working with the disabled and rehabilitation, or community and basic security work.**



Airing at drama lesson.

THE INTERNATIONAL PROGRAMMES

The studies emphasize 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. 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 everchanging 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.

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THE INTERNATIONAL PROGRAMMES

CULTURAL AND MEDIA STUDIES

The unit trains qualified media experts (in film, TV, radio and web) in the degree programme of Media, and visual artists (in media art, 2D graphics, animation, 3D, photography, multimedia and web art) in the degree programme of Visual Arts.

Upon graduation, students qualify for the following professions based on their specialisation:

journalist, editor, web artist, stage manager, TV cameraman, sound engineer, music producer, cinematographer, production manager, media graphics designer, TV lighting cameraman, director or assistant director, scriptwriter, media designer etc.

Education aims at providing both technical and artistic skills and knowledge needed in audio-visual professions with the use of the latest and most advanced information and media technology. Side by side

with traditional visual art subjects, the degree programme of Visual Arts emphasises the interactive net publishing, image processing and environmental art applications. The degree programmes of Media and Visual Arts are organised every year in five eight-week-long periods so that the total amount of credits achieved per student is 240 ECTS credits/160 Finnish credits. The duration of the studies is 4 years.

The degree programmes include 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.



"Proposal" - Media students making a movie.

THE INTERNATIONAL PROGRAMMES

The study groups are mixed at several intervals and they also vary in size according to the aims of the particular course. The unit also annually offers some continuation studies in audio-visual journalism, animation, media management and other applied subjects.

A lot of emphasis in the training is put on the practical and expressive skills based on the theoretical knowledge of arts and media. Methods vary from lessons to exercises, field trips to examinations. Required readings consist partly of English and Swedish books. Teamwork 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 can also present an audio-visual 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.

The teaching languages are Finnish and English. Please inquire at the unit's office for details of the courses in English and for details of this year's deadlines.

The application forms can also be obtained from the unit's office. Foreign students (all except the Erasmus exchange students) are asked to send their:

1. Foreign Student application (special form)
2. Previous work record (if any)

3. Curriculum vitae and possible recommendations

For further details, please contact the unit coordinator.



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ACADEMIC INFORMATION

THE ACADEMIC CALENDAR FOR 2004-2005

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 edu-

cation 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.

Autumn term 2004

Degree Programmes
A Holiday week
Christmas vacation

Starts

1 September
18 October
18 December

Ends

17 December
22 October
2 January

Spring term 2005

Degree Programmes
TaB – Technology as Business
Winter holiday
Easter holiday

Starts

3 January
1 February
7 March
25 March

Ends

31 May
31 May
11 March
28 March

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.

Exchange students fill in a special application form which includes a learning agreement. The learning agreement is drawn up by Erasmus students and the institutions involved before the student goes abroad. The application form for Student Exchange Programme is attached at the end of the guide.

Students who intend to study the whole degree programme in Kemi-Tornio Polytechnic must follow the application deadlines of individual degree programmes see the charter application periods. In this case students must also use the special application forms of degree programmes which can be obtained from the educational units. Some educational fields arrange aptitude tests of their own. More detailed information on aptitude tests can be requested from the educational units.

All foreign students must sign up for their degree programmes in the educational unit as soon as possible after their arrival.

GENERAL PRACTICAL INFORMATION

Application periods	Deadlines	
	Outside Europe	In Europe
<i>Exchange programmes</i>		
Autumn 2004		15 May
Spring 2005		15 November
The whole school year		15 May
<i>Degree Programmes</i>		
Business Management	14 February	31. May
Business Information Technology	14 February	31. May
Information Technology	14 February	31. May
Health Care and Nursing		31. May
TaB - Technology as Business		14 November

BEFORE LEAVING YOUR COUNTRY

As an exchange student You need to get certain documents before leaving Your home country:

- Form of identification/passport
- Document certifying Erasmus student status and grant allowance (home institution)
- A letter of acceptance (will be sent to you by the host institution)
- 2 photographs
- Medical information and form (E111)
- The transcript of records from the home institution
- an insurance certificate

The following requirements are valid for full-term degree students:

- Form of identification/passport
- Document confirming that you can support yourself financially while in the country

- A letter of acceptance (will be sent to you by the host institution)
- 2 photographs
- Medical information and form (E111)
- The transcript of records from the home institution
- an insurance certificate

Passport/Identity Card

Before coming to Finland there are certain preparations you should undertake before leaving your home country. Take into account the new Schengen agreement: As from 25 March 2001, there will be altogether 13 EU countries fully applying the Schengen agreement. In addition, Norway and Iceland, also apply the agreement.

In practice, the application of the Schengen agreement means that regular passport

GENERAL PRACTICAL INFORMATION

controls on persons:

- on ferry crossings between Finland and the other Schengen countries
- on internal flights within the "Schengen area" will no longer be carried out

Although there are no longer regular checks on persons in the Schengen area, nationals of EU countries are obliged to prove their identity.

Be sure that you take your passport or identity card or an electronic identity card with you in order to be able to prove your identity. For more information, please see: www.intermin.fi/eng/schengen/index.htm. The citizens of the countries which have not signed the Schengen agreement need a valid passport.

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 while studying in Finland.

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/

GENERAL PRACTICAL INFORMATION

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 5046 EUR, with no conditions restricting the use of this account. A new deposit is required at the beginning of each academic year. In this case the price of the first residence permit is 67 EUR. If you

apply for continuation of residence permit the price is 22 EUR. 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.

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. There is an airport bus service or local minibus to Helsinki city and of course taxis are also available. It is also possible to arrive by sea, from Sweden, Russia, Germany, Latvia 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.

You can take a flight from Helsinki to Kemi and it takes about an hour. It is also pos-

sible 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 or a bus from Stockholm to Haparanda/Tornio/Kemi is also an alternative.

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 student union KETOAKKU +358 16 258 640, e-mail: paasihteeri@ketoakku.fi.

GENERAL PRACTICAL INFORMATION

As You arrive in Kemi or Tornio, You'll be met by the student tutors already at the airport or at the railway station. After arriving, the students will guide You to your student residences.

ACCOMMODATION

For exchange 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 Krunni 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 Kemi the student housing is located within a 2,5 km radius of the educational units. You are provided with a single room and will share kitchen, bathroom and shower with one to two students. The flats are furnished. When it comes to other equipment and laundry facilities the information given above on student housing in Kemi is also valid for Tornio. The rent is about 150–210 EUR. Electricity, heating and water are included in the rent. The deposit is 134 EUR. Information about "survival kits" can be found on KETOAKKU-pages

In Tornio the student housing is located within a 500 m radius of the polytechnic.



Most student residences have a free access to the Internet. Student dormitory in Kemi.

You are provided with a single room and will share kitchen, bathroom and shower with two students. The flats are furnished. You also have access to laundry facilities. The rent is approximately 200 EUR per 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.

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.

GENERAL PRACTICAL INFORMATION

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.

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 (KELA = Kansaneläkelaitos). If your stay in Finland lasts for less than one year, you must have the E111 form from your 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, you 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 need to



GENERAL PRACTICAL INFORMATION

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 9-17 EUR. 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.

BANKING

Travellers' cheques and the common credit cards such as Visa are the best. Banks charge approximately 3,5 EUR for money exchange and it is advisable to limit the number of money exchanges you make. Be sure that you have euros on hand when

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. 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.

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 (www.cimo.fi).

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 tutors and banks.

How to call abroad

Dial the international prefix 990, 991, 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.

GENERAL PRACTICAL INFORMATION

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 150 EUR per month if you live in a student dormitory and 330 EUR 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 1,7-2 EUR. There are always two lunch alternatives; the other one is vegetarian. Other restaurants are more expensive. Do not forget to include personal and leisure expenses. The total monthly living expenses of a single student average around 600 EUR.

KETOAKKU - THE STUDENT BODY OF KEMI-TORNIO POLYTECHNIC



Ever tried to play volley on a soft snow field? The Snow Volley tournament in May is an extreme experience for anyone!

KETOAKKU consists of six different student bodies from all units of Kemi-Tornio Polytechnic. It has approximately 950 members. The purpose of KETOAKKU is to look after students' rights in educational and social matters. The Student Body also makes 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 and trips can be found on the school notice board and at the websites (www.tokem.fi/ketoakku).

Student bodies from different units of Kemi-Tornio Polytechnic play an active role in tutoring foreign students. They also arrange various leisure time activities for the students. For further information feel free to contact the student body in your own unit. For foreign students KETOAKKU arranges at least one meeting per term. 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.

GENERAL PRACTICAL INFORMATION

From KETOAKKU's office foreign students may rent a "survival kit" with bedclothes, cutlery and other implements a foreign student needs in daily housekeeping. The rent is 40 EUR and KETOAKKU will reimburse 20 EUR while returning the kit.

KETOAKKU has its office on Valtakatu 22, Kemi. The office is open Mon-Fri from 8 am. to 4 pm. All students are very welcome to visit there. Please do not hesitate to contact the Student Body!

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, aerobics, boxing, volley ball, basket ball, football etc. If you are keen on outdoor sports there are several possibilities: parachuting, shooting, walking in the nature, sailing 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 good opportunities for social gatherings or nightlife. For more information please see www.kemi.fi/english

For further information please do not hesitate to contact us!

Kemi-Tornio Polytechnic student body
KETOAKKU
Valtakatu 22
FIN-94100 Kemi Finland
Tel. +358 16 258 640
Fax +358 16 250 426

Secretary General
Ms Merja Parkkila
Tel. +358 16 250 425
E-mail:
paasihteeri.ketoakku@tokem.fi



ATTACHMENTS



KEMI-TORNIO POLYTECHNIC

Rector's Office P.O.Box 505
FIN-94101 Kemi Finland
annikki.pulkkinen@tokem.fi
www.tokem.fi

APPLICATION FORM STUDENT EXCHANGE PROGRAMMES Socrates/Erasmus, First and Bilaterals

SENDING INSTITUTION

(Please write in block letters)

University and department	
Head of department	
E-mail	Phone and fax
Socrates coordinator	
E-mail	Phone and fax
Signature of department Socrates or other programme coordinator	Date:
Signature of institutional Socrates or other programme coordinator	Date:
<input type="checkbox"/> I permit that my information can be used as research-material for Kemi-Tornio Polytechnic	

STUDENT PERSONAL DATA

Family name		First names	Date of Birth
Nationality	Sex Male <input type="checkbox"/> Female <input type="checkbox"/>	Marital status Single <input type="checkbox"/> Married <input type="checkbox"/>	
Street address	Postal code	Photo	
Country	E-mail		
Telephone number (note country code)			
Programme of study and year at sending institution			

Languages

English	<input type="checkbox"/>	elementary	<input type="checkbox"/>	intermediate	<input type="checkbox"/>	advanced
Swedish	<input type="checkbox"/>	elementary	<input type="checkbox"/>	intermediate	<input type="checkbox"/>	advanced
German	<input type="checkbox"/>	elementary	<input type="checkbox"/>	intermediate	<input type="checkbox"/>	advanced
French	<input type="checkbox"/>	elementary	<input type="checkbox"/>	intermediate	<input type="checkbox"/>	advanced
Spanish	<input type="checkbox"/>	elementary	<input type="checkbox"/>	intermediate	<input type="checkbox"/>	advanced
Finnish	<input type="checkbox"/>	elementary	<input type="checkbox"/>	intermediate	<input type="checkbox"/>	advanced

Please turn.



ATTACHMENTS

(please select appropriate category)

Degree Programmes		
Degree Programme in Business Management Bachelor of Business Administration	<input type="checkbox"/>	Period of study Autumn semester <input type="checkbox"/> (August-December)
Degree Programme in Business Information Technology Bachelor of Business Administration	<input type="checkbox"/>	Spring semester <input type="checkbox"/> (January-May)
Degree Programme in Information Technology Bachelor of Engineering	<input type="checkbox"/>	
Degree Programme in Health Care and Nursing Bachelor of Health Care	<input type="checkbox"/>	
Non-degree programmes		
Technology as Business	<input type="checkbox"/>	
Arrival date:		
Accommodation should be organised (please refer to the special application for accommodation)		yes <input type="checkbox"/> no <input type="checkbox"/>
from to		
Application periods		
	Deadlines	
	Outside Europe	In Europe
Exchange programmes		
Autumn 2004		15 May
Spring 2005		15 November
The whole school year		15 May
Degree Programmes		
Business Management	14 February	31 May
Business Information Technology	14 February	31 May
Information Technology	14 February	31 May
Health Care and Nursing		31 May
TaB - Technology as Business		14 November

ATTACHMENTS



KEMI-TORNIO POLYTECHNIC

Rector's Office P.O. BOX 505
 FIN – 941 01 Kemi Finland
 annikki.pulkkinen@tokem.fi
 www.tokem.fi

ECTS – LEARNING AGREEMENT

Student's name _____
 Date of Birth _____

Course unit code	Course unit title (as indicated in the information package)	Number of ECTS credits
Date: _____		Student's signature: _____
Sending institution		
We confirm that this proposed programme of study/learning agreement is approved.		
Date: _____		Departmental Socrates or other programme coordinator's signature: _____
Date: _____		Institutional Socrates or other programme coordinator's signature: _____
Receiving institution		
We confirm that this proposed programme of study/learning agreement is approved.		
Date: _____		Departmental Socrates or other programme coordinator's signature: _____
Date: _____		Institutional Socrates or other programme coordinator's signature: _____

ATTACHMENTS

ATTACHMENTS

Kemin opiskelija-asunto säätiö
(The Kemi Student Dormitory Foundation)

Tornion Kranni Oy
(The Tornio Student Apartment Administration)



APPLICATION for accommodation

APPLICANT

(Please, write in block letters)

Family name	First names	Social security no./Date of birth)
Nationality	Sex Male <input type="checkbox"/> Female <input type="checkbox"/>	Marital status Single <input type="checkbox"/> Married <input type="checkbox"/>

HOME ADDRESS

Street address	Telephone number (note country code)
Postal code and town	Country

HOME INSTITUTION

Name of home institution	
Street address	Telephone number (note country code)
Postal code and town	Country

GENERAL INFORMATION

Name of the school you have been accepted	Education programme
Date of arrival	Need for accommodation from to

OTHER EXTRA INFORMATION (what kind of room required, allergies etc.)

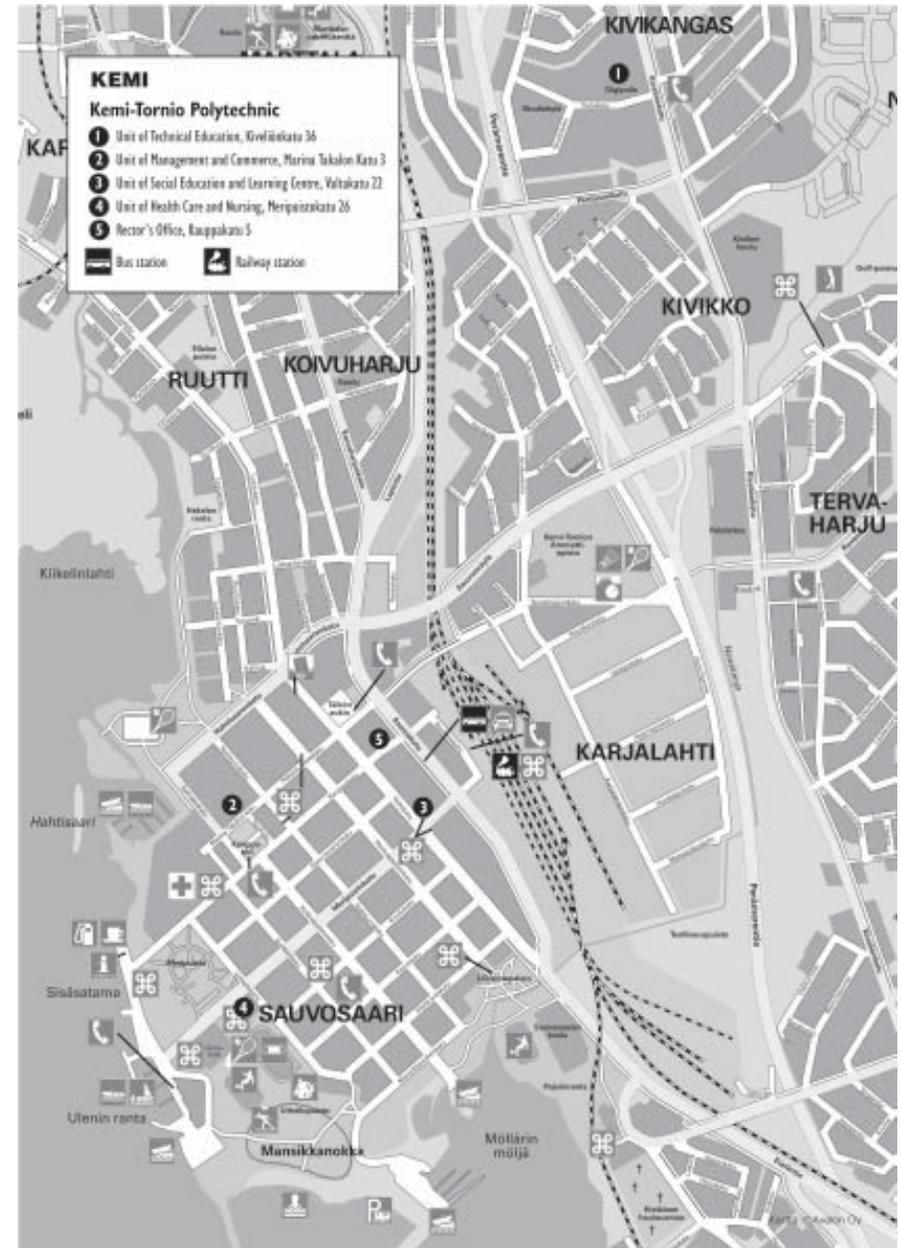
Date and Place	Signature
----------------	-----------

Please submit this application to the International Officer in Kemi-Tornio Polytechnic.

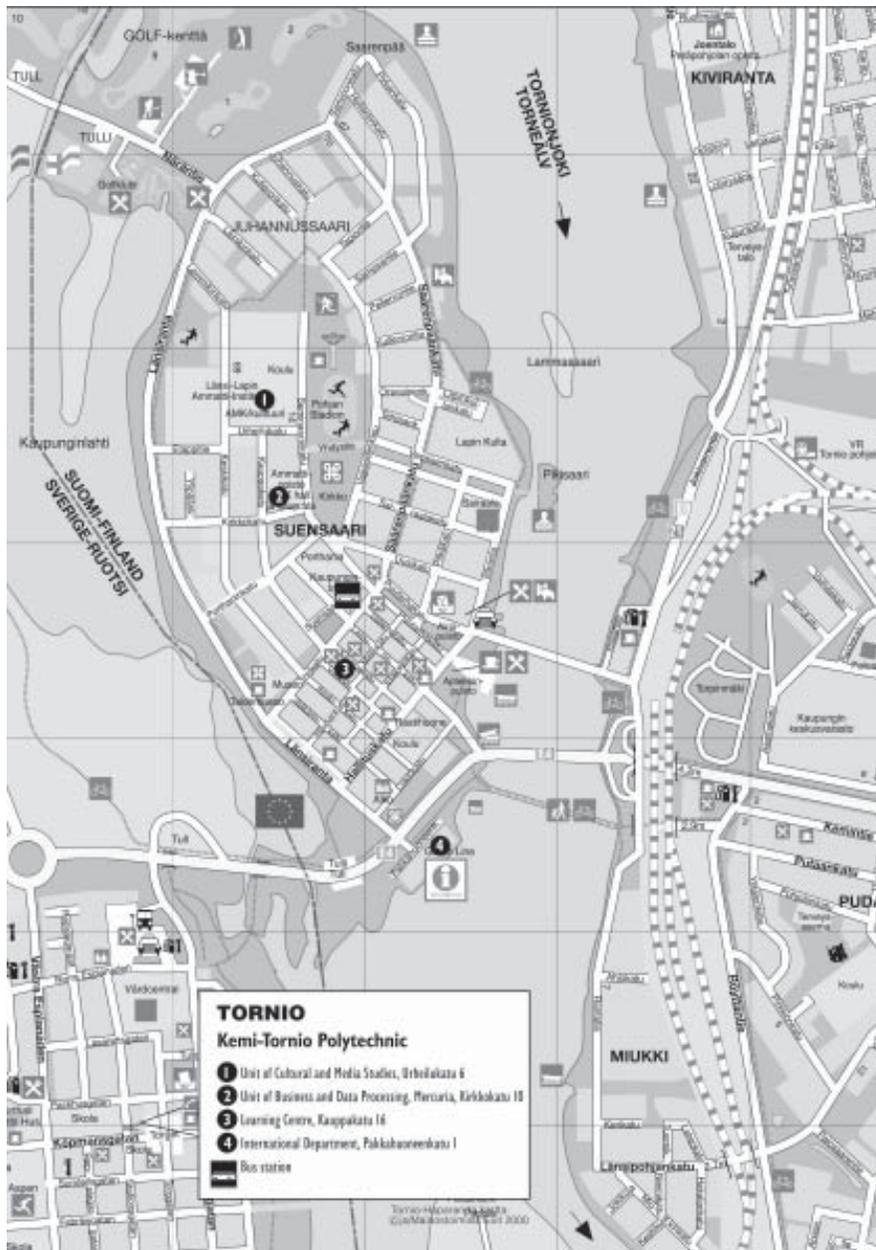
MAP OF EUROPE



MAP OF KEMI



MAP OF TORNIO



SOCRATES/ERASMUS PARTNERS

Bodo Graduate School of Business
(N Bodo 04)

Høgskolen i Bodo
Grete Knudsen
N-8002 BODO
Tel. +47 755 17 677
Fax +47 755 17268
E-mail: Grete.Knudsen@hibo.no
· Business & Management Studies
· Student exchange and Teacher exchange

Budapest Business School
Faculty of International management
Business (CMBS) (HU BUPAPES20)
Mr György Hasko
1165 Budapest, Dioso Lajos u. 22-24 Hungary
Tel. +361 467-78 11, +36 1 467-78 00
Fax +36 1 407 15 56
E-mail: haskogy@kkf.hu
· Business & Management Studies
· Student exchange and Teacher exchange

Budapest Polytechnic
Kando Kalman Faculty of E Engineering
(HU BUDAPES 16)
Institute of Computer Engineering
Mrs Maria Dudas
H-1084 Budapest Tavaszmező u. 15-17
Tel. +36 1210 2651
Fax +36 1303 9425
E-mail: dudas@nfs.jozsef.kando.hu
· Engineering/Electronic Engineering
· Student exchange and Teacher exchange

Ecole ESA3 Etudes superieures Appliquees Aux
Affairs (F Paris 113)
Daphne du Nouy
coordinatrice Internationale
ESA-Paris, 24 rue Hammelin, F 75 116 PARIS
Tel. +33 1 47 04 95 22
Fax +33 1 47 04 32 82
E-mail: info2esa3.com
· Business studies
· Student exchange

Ev. Fachhochschule
Darmstadt (D DARMSTA03)
Winfried Seelisch
Zweifalltorweg 12
64293 DARMSTADT
Tel. +49 615 87 98 42
Fax +49 6151 879 858
E-mail:efhd@efh-darmstadt.de

· Social Science/Social Work, Nursing
· Student exchange and Teacher exchange

Fachhochschul-Studiengänge-Vorarlberg
(A Dornbir01)
Karin Wüstner-Dopler
Achstrasse 1, 6850 Dornbirn, Austria
Tel. +43 5572 20336 105
Fax +43 5572 20336 120
E-mail: karin.wuestner-dobler@
fh-vorarlberg.ac.at
· Business Studies, Manufacturing Science,
Informatic
· Student exchange

Fachhochschul-Studiegänge Wiener
Neustadt (A Wiener01)
Wiener Neustädter Bildungs- und
Forschungs Ges.M.B.H
Sabine Pata
Johannes Gutenbergstrasse3, A-2700
Wiener Neustadt, Austria
Tel. +43/2622/89 0 84 0
Fax +43/2622/89 0 84 99
E-mail: pata@fhwn.ac.at
· Business & Management Studies
· Student exchange

Fachhochschule Augsburg
(D Augsburg02)
Ingrid Hahn-Eisenhardt
Auslandsamt, Baumgartnerstrasse 16,
Raum B 216a, D-86161 Augsburg
Tel. +49 821-55 86 205
Fax +49 821-55 86 207
· Engineering, technology
· Student exchange and Teacher exchange

Fachhochschule Dysseldorf
Fachbereich Wirtschaft
ms Adelheid Korpp, Department of the Business
Studies
Geb. 23.32 Universitätsstrasse
D-40225 Dysseldorf
Tel. +49 211 81 11908
Fax +49 211 81 14369
E-mail: a.korpp@fg-duesseldorf.de
· Business studies
· Student exchange and Teacher exchange

Haute Ecole Namuroise
Catholique (HENac)
(B CHAMPIO02)

SOCRATES/ERASMUS PARTNERS

Departement Paramedical
Sainte-Elisabeth
Place Louise Godin, 15,
B 5000 Namur-Belgique
Tel. +32 81 73 52 19
Fax +32 81 73 84 78
E-mail: henac.paramed@gate71.be
· Nursing
· Student exchange

Hochschule Bremen
Neustadswall 30
D-28199 BREMEN
Ms Dörte Roselius-Lantwehr
Neustadswall 30
28199 BREMEN
Tel. +49 421 5905-0
Fax +49 421 5905 174
· AV Journalism, Technology
· Student exchange and Teacher exchange

Hogeschool Alkmaar
(NL-Alkmaar01)
Dr Ed Wichers
P.O. Box 403, 1800 AK Alkmaar
The Netherlands
Tel. +31 72 518 37 756
Fax +31 72 518 3732
E-mail: E.C.E.S.Wichers@hsa.nl
· Business studies
· Student exchange and Teacher exchange

Hogeschool van Utrecht
Faculteit Natuur en Techniek
(NL Utrecht 24)
dr.ir. P.J.M. Scholten
P.O. Box 182-3500 AD-Utrecht
The Netherlands
Fax +31 30 238 88 89
E-mail: p.scholten@staf.fnt.hvu.nl
· Business Studies and Management Science
· Student exchange

IESN Haute Ecole d'Enseignement
Superieur de Namur (B Namur10)
Carine Vervaeren
Rue Joseph Calozet 19-B-5000 Namur
Belgium
Tel. +32 81 72 36 43
Fax +32 81 72 36 49
E-mail: c.vervaeren@iesn.be
· Business & Management Studies, Engineering
· Student exchange and Teacher exchange

Ingeniörhögskolan Köbenhavns
Teknikum (DK Köbenhavn14)
Prof. Ib Gustafsson
Lautrupvang 15, DK-2750 Ballerup
Tel. +45 44 80 52 32
Fax +45 44 80 52 10
E-mail: ig@cph.ih.dk
· Engineering, Technology
· Student exchange

Instituto Politecnico De Castelo Branco
(P Castelo01)
Escola Superior De Tecnologia
E Gestao
Maria da Conccicao
Av. Empresario, 6000 Castelo Branco,
Portugal
Tel. +351 272 339 600
Fax +351 272 3393 601
E-mail: gri.ipcb@mail.ipcb.pt
· Engineering
· Student exchange and Teacher exchange

Kingston University (UK Kingston)
Ms Jacqui Moorhouse
International Relations Office
River House, 53-57 High Street,
Kingston Upon Thames, Surrey KT1
1LQ, UK
Tel. +44 20 8547 7763
Fax +44 20 8547 8132
E-mail: j.moorhouse@kingston.ac.uk
· Related to nursing
· Teacher exchange

Kodolanyi Janos
University College (HU SZVAR 01)
Kinga Petrucz
8000 Szekesfehervar, Szabedsagharcos
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· Tourism, Business studies, Teacher Ed. Training,
Economics, International Relations,
Communication
· Student exchange and Teacher exchange

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· Business & Management Studies, Electronic
Engineering
· Student exchange and Teacher exchange

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E-mail: da@udd.petersabroe.dk
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· Social educator training
· Student exchange and Teacher exchange

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· Media, Musik Production
· Student exchange and Teacher exchange

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· Business studies and Management Sciences
· Student exchange

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· Engineering/Electronic Engineering
· Student exchange and Teacher exchange

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· Student exchange and Teacher exchange

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· Business studies
· Student exchange

The Wismar University of Technology, Business
and Design
Prof. Dr. Norbert Grynwald
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· Student exchange and Teacher exchange

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· Nursing
· Student exchange and Teacher exchange

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Kaunas, Lithuania
· Business Studies
· Student exchange and Teacher exchange

Universidad de Murcia
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Catering, Hotel Management, Nursing
· Student exchange and Teacher exchange

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· Engineering, MultiMediaArt, Inf management/
digital Business
· Student exchange and Teacher exchange

About accommodation

Kemin opiskelija-asuntosäätiö
(The Kemi Student Dormitory Foundation)
Keskuspuistokatu 6-8
FIN-94100 Kemi Finland
Tel. +358 16 226 0332

Tornion Krunni Oy
(The Tornio Student Apartment Administration)
Kirkkokatu 1B
FIN-95400 Tornio Finland
Tel. +358 16 430 985

Tornion vuokra-asunnot Oy
(The Tornio Rental Apartment Administration)
Kauppakatu 10
FIN-95400 Tornio Finland
Tel. +358 16 432 227

Kemin kaupungin vuokra-asunnot
(Rental apartments of the city of Kemi)
Valtakatu 26
FIN-94100 Kemi Finland
Tel. +358 16 259 298

Useful WWW-pages

www.tokem.fi
www.tornio.fi
www.kemi.fi
www.haparanda.se
www.rovaniemi.fi
www.lapland.fi
www.bothnianarc.net
www.laplandfinland.com

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
www.cimo.fi

About health care

Health station "Terveyspysäkki"
The Unit of Health Care and Nursing
Meripuistokatu 26
FIN-94100 Kemi Finland
Tel. +358 16 258 422

Kemin terveystakeskus
(Health-care centre in Kemi)
Kauppakatu 22
FIN-94100 Kemi Finland
Tel. +358 16 259 700

Emergency medical service in the central
hospital in Kemi
Kauppakatu 25
FIN-94100 Kemi Finland
Tel. +358 16 243 271

Tornion terveystakeskus
(Health-care centre in Tornio)
Sairaalakatu 1
FIN-95400 Tornio Finland
Tel. +358 16 432 814

General emergency number 112

About taxi services

Taxi services in Kemi and Tornio
Tel. 100410