Filters used for the printout

Curriculum period: 2024-2025. **Studies included in the printout:** Courses. **Languages of the descriptions:** English. **Language of the printout template:** English.

LUTKEXCHSPRING Exchange Studies (Spring Semester)

LUTKEXCHSPRING Exchange Studies (Spring Semester)

CURRICULUM PERIOD 2024-2025

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	min 20 cr
Languages	English
Grading scale	Grading scale for degrees (distinction)
Content approval required	no
Locations	Lappeenranta
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	Lappeenranta-Lahti University of Technology LUT 100%
Responsible persons	Annukka Ilves, Administrative person Armi Rissanen, Responsible teacher Jonna Naukkarinen, Responsible teacher Minna Loikkanen, Responsible teacher Tarja Pettinen, Responsible teacher Suvi Tiainen, Responsible teacher
Degree programme type	Bachelor's Degree
Degree titles	Bachelor of Science (Technology)
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law
Education classification	632101 Bachelor of Science (Economics and Business Administration), Business Economics

Content description

EN: Whether you are planning to stay for a semester or a year, the exhange students coming to LUT have a proud history of enjoying themselves.
At LUT students can easily combine technology and business studies under the same roof. LUT will offer a large number of courses in many academic fields and the choice is yours! However, in order for you to make the most of your stay, please be proactive and take responsibility for your study plan and your studies.

Most of the courses are intended for Master's level or final year Bachelor students, but there are also choices available for those in their Bachelor studies. As the majority of courses are taught at the Master's level, students are expected to have bachelor level knowledge of relevant subjects.

The courses you include in your learning agreement may be subject to chance. A learning agreement is not considered as a course registration.
When starting your studies at LUT you need to enroll to courses and exams.

It is possible to study approximately 30 ECTS credits per one semester. Minimum number of credits per semester is 20.

We at Lappeenranta-Lahti University of Technology (LUT) invite you to join our high-standard and cross-cultural education and research community.

More information about exhange study experience at LUT www.lut.fi/exhange

DEGREE STRUCTURE

Part of the degree	Credits
EXCHANGE STUDIES (SPRING SEMESTER) DRAFT	min 20 cr
KAKEXCHSPRING BUSINESS ADMINISTRATION DRAFT	min 0 cr
BUSINESS ADMINISTRATION FOR BUSINESS STUDENTS (grouping module)	
A380A0131 Business Relationships in International Value Networks DRAFT	6 cr
A380A6000 Cross-Cultural Encounters DRAFT	3 cr
A380A0000 Cross-Cultural Issues in International Business DRAFT	6 cr
A380A0500 Introduction to Corporate Social Responsibility and Sustainability DRAFT	6 cr
A380A0300 Introduction to Digital Marketing DRAFT	3 cr
A130A0551 Organizational Behaviour DRAFT	6 cr
A380A0310 Services Marketing and Customer Experience Management DRAFT	3 cr
A380A6060 Applied International Business DRAFT	6 cr
A380A0400 Professional Selling DRAFT	6 cr
A130A0620 Basics in MS Excel for Business Students DRAFT	3 cr
A130A0680 Statistics for Economics DRAFT	6 cr
BUSINESS ADMINISTRATION ONLY FOR ENGINEERING STUDENTS (grouping module)	
VA10A1000 Basics of Management and Organisations DRAFT	5 cr
VA10A1100 Basics of Marketing and Sales DRAFT	5 cr
VA10A1400 Economics and the Business Environment DRAFT	5 cr
VA10A1600 Introduction to Corporate Social Responsibility DRAFT	5 cr
VA10A1700 Understanding and Managing a Business as a Dynamic Whole - Business Simulation Game DRAFT	5 cr
LAKEXCHSPRING COMPUTATIONAL ENGINEERING DRAFT	min 0 cr
BM40A0202 Foundations of Computer Science DRAFT	6 cr
BM20A8801 Discrete Mathematics DRAFT	3 cr
BM20A7102 Statistics II DRAFT	4 cr
SAKEXCHSPRING ELECTRICAL ENGINEERING DRAFT	min 0 cr

BL40A2011 Introduction to Cyber-Physical Systems 4 cr
DRAFT

BL40A1812 Introduction to Embedded Systems 6 cr
DRAFT

ENKEXCHSPRING ENERGY TECHNOLOGY min 0 cr
DRAFT

BH40A0102 Basics of Renewable Energy Engineering 3 cr
DRAFT

BH50A0220 Energy Systems 5 cr
DRAFT

BH40A1401 Fluid Mechanics I 3 cr
DRAFT

BH10A1900 Fundamentals of Energy Technology 2 cr
DRAFT

BH30A0020 Introduction to Nuclear Power Engineering 3 cr
DRAFT

YMKEXCHSPRING ENVIRONMENTAL TECHNOLOGY min 0 cr
DRAFT

BH60A5900 Climate Change 5 cr
DRAFT

BH60A7200 Circular.now 3 cr
DRAFT

BH60A0002 Basic Course in Environmental Technology A 6 cr
DRAFT

BH60A6801 Sustainable.now 3-5 cr
DRAFT

BH60A6000 Basic Course in Life Cycle Assessment 4 cr
DRAFT

TUKEXCHSPRING INDUSTRIAL ENGINEERING AND MANAGEMENT min 0 cr
DRAFT

CS30A1365 Sustainability-oriented innovation 3 cr
DRAFT

LESKEXCHSPRING LUT SCHOOL OF ENERGY SYSTEMS min 0 cr
DRAFT

LES10A260 Technical Computing Software 4 cr
DRAFT

LES10A410 Engineering Project Work 5-10 cr
DRAFT

KOKEXCHSPRING MECHANICAL ENGINEERING min 0 cr
DRAFT

BK10A6300 Engineering Design 3 cr
DRAFT

BK10A6400 Basics of FE-Analysis 4 cr
DRAFT

BK10A6500 Engineering Mechanics 3 7 cr
DRAFT

TIKEXCHSPRING SOFTWARE ENGINEERING min 0 cr
DRAFT

CT60A4304 Basics of database systems 3 cr
DRAFT

CT60A7650 Database Systems Management 3 cr
DRAFT

CT60A5531 Software Project Management 3-6 cr
DRAFT

CT70A9110 Software Development Skills: Front-End 3 cr
DRAFT

CT70A9120 Software Development Skills: Mobile 3 cr
DRAFT

CT70A9140 Software Development Skills: Full-Stack 3 cr
DRAFT

CT10A7052 Software Engineering work practise 3 cr
DRAFT

CT30A2804 User Interfaces and Usability 6 cr
DRAFT

CT70A9150 Introduction to DevOps 3 cr
DRAFT

KIEEXCHSPRING LANGUAGE STUDIES min 0 cr
DRAFT

FINNISH (grouping module)

K200CE69 Finnish 1 3 cr
DRAFT

K200CE70 Finnish 2 3 cr
DRAFT

K200CH62 Finnish 3 3 cr
DRAFT

K200CH63 Finnish 4 3 cr
DRAFT

K200CG35 Finnish for Work 2 5 cr
DRAFT

KM00CO04 Finnish Culture and Society 3 cr
DRAFT

K200CU41 Suomi with Love 1 3 cr
DRAFT

K200CS72 Independent study in Finnish 2 cr
DRAFT

K200CQ88 Finnish Conversation 2 5 cr
DRAFT

K200CP87 Finnish Conversation 1 3 cr
DRAFT

ENGLISH (grouping module)

KE00BZ84 English for Professional Development (Business) 4 cr
DRAFT

KE00BZ85 English for Professional Development (Technology) 4 cr
DRAFT

KE00BZ83 English for Professional Development (ESTIEM) 4 cr
DRAFT

KE00CG81 Business Writing 3 cr
DRAFT

KE00BZ81 Academic Writing 3 cr
DRAFT

KE00CG33 Writing for Digital Media 4 cr
DRAFT

KE00CQ38 Introduction to Copywriting 2 cr
DRAFT

KE00CG79 Professional Reading 3 cr
DRAFT

KE00CG82 Online Presentations 3 cr
DRAFT

KE00BX35 English Pronunciation 1 cr
DRAFT

KE00CC64 English Prep Course 3 cr
DRAFT

GERMAN (grouping module)

KD00CH39 German 1 3 cr
DRAFT

KD00CH40 German 2 3 cr
DRAFT

KD00CH41 German 3 3 cr
DRAFT

KD00CH43 German for Work 2 3 cr
DRAFT

KD00CT54 German for Work 3 3 cr
DRAFT

FRENCH (grouping module)

KF00CH30 French 1 3 cr
DRAFT

KF00CH31 French 2 3 cr
DRAFT

KF00CH32 French 3 3 cr
DRAFT

KF00CG43 French for Work 1 3 cr
DRAFT

KF00CG44 French for Work 2 3 cr
DRAFT

KF00CL06 Le monde francophone 5 cr
DRAFT

SPANISH (grouping module)

KP00CK94 Spanish 1 3 cr
DRAFT

KP00CH26 Spanish 2 3 cr
DRAFT

KP00CH27 Spanish 3 3 cr
DRAFT

KP00CP90 Spanish 6 3 cr
DRAFT

KP00BX61 Spanish for Working Life 1 3 cr
DRAFT

KP00BX62 Spanish for Working Life 2 3 cr
DRAFT

CHINESE (grouping module)

KC00CQ67 Basic Chinese 2 5 cr
DRAFT

KC00CQ69 Intermediate Chinese 2 3 cr
DRAFT

KC00DB86 Chinese 1 2 cr
DRAFT

KC00DB87 Chinese 2 3 cr
DRAFT

KC00DB88 Chinese 3 4 cr
DRAFT

INTERCULTURAL COMPETENCE AND COMMUNICATION (grouping module)

KM00BX75 Each one teach one 3 cr
DRAFT

KM00CO04 Finnish Culture and Society 3 cr
DRAFT

FILTERED COURSES

BM40A0202 Foundations of Computer Science

BM40A0202 Foundations of Computer Science

Curriculum period	2024-2025
Validity period	since 6 Jan 2025
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Computational Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Zhisong Liu, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta and Lahti

Equivalences (free text field)

EN: BM40A0201 Tietojenkäsittelytieteen perusteet 6 op.

Learning outcomes

EN: After passing the course, the student knows the foundations of computer science. She is able to describe how logic, discrete mathematics are on the background of computers, and to explain functional basis and limitations of computers, and approaches to avoid the limitations. The student is able to compare the complexity of algorithms and is able to identify methods for checking the correctness of algorithms. She knows the relevant concepts in computer science, is able to describe the functionality of computers in the mechanical execution of algorithms, is able to recognize the limitations of algorithmic problem solving and computers. The student is capable for solving small topic-related problems personally and in a small group. She is able to outline applications of computer science methods within different fields, and she has become acquainted to educational, professional, and ethical questions of the field.

Content

EN: Logic and computer: logic and discrete methods, logical circuits, computer architecture and limitations, machine language and system programs. Applications of computer science: programming paradigms, computational methods and intelligence, future aspects of computer science and technology. Computer science in education, research and as a profession, ethics.

Study materials

EN: Lecture material, which is based mainly on following source books:
Boberg J.: Johdatus tietojenkäsittelytieteeseen, Turun yliopisto, 2012.

Brookshear G., Brylow D.: Computer Science - An overview, 12th Edition, Addison-Wesley, 2015.

Reed, D.: Balanced Introduction to Computer Science, 3rd Edition, Pearson 2011.

Råde L., Westergren, B.: Mathematics handbook for science and engineering, 3rd ed., Studentlitteratur, 1995.

Tietotekniikan peruskirja, toim. Paananen J., Docendo, 2005.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course Assessment		6 cr
Course Enrolment		0 cr
Method 2	Recurrence 1: 3. period-4. period	6 cr
Course Assessment		6 cr
Course Enrolment		0 cr

BM20A8801 Discrete Mathematics

BM20A8801 Discrete Mathematics

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Computational Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Lassi Roininen, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Prerequisites

EN: Some basic mathematics & statistics course.

Equivalences to other studies

BM20A6600 Discrete Models and Methods

Learning outcomes

EN: Upon completion of the course the student is expected to know and understand the basic concepts of discrete mathematics, be able to formulate models representing simple discrete problems and solve them.

Content

EN: Introduction to the following concepts: Logic, propositions and conditional propositions, induction. Relations, relational operations, properties, equivalence and order relations. Combinatorics, graph theory, paths and cycles, shortest path method. Decision trees and transport problems.

Study materials

EN: Lecture materials in Moodle. Source books include but are not limited to:
Dossey, Otto, Spence, Vanden Eynden: Discrete mathematics, Pearson 5th edition, 2006.

Richard Johnsonbaugh, Discrete mathematics, Prentice hall, 6th edition, 2005.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	3 cr
Course Assessment		3 cr
Course Enrolment		0 cr

BM20A7102 Statistics II

BM20A7102 Tilastomatematiikka II

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Computational Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Tarja Pettinen, Administrative person Jarkko Suuronen, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta

Prerequisites

EN: Required: Basic on Matlab programming, BM20A1401 Statistics I or equivalent knowledge.

Compulsory prerequisites

BM20A8601 Statistics I

Learning outcomes

EN: The student expands his/her knowledge statistical methods, is able to formulate models and apply these methods to various areas in technology, economics and science. The student is able to perform two-sample tests, analysis of variance, analyze time series data. The student understands multivariate distributions and knows basics of factor analysis.

Content

EN: Statistical inference: distribution testing, hypothesis testing, two or multiple sample tests. Paired tests. Nonparametric tests. Basics of analysis of variance, time series analysis and multiple regression models. Introduction to nonlinear regression. Introduction to factor analysis.

Study materials

EN: Anthony J. Hayter, "Probability and Statistics for Engineers and Scientists"

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	4 cr
Course Enrolment		0 cr
Course Assessment		4 cr
Method 2	Recurrence 1: 4. period	4 cr
Course Assessment, in English		4 cr
Course Enrolment, in English		0 cr

BL40A2011 Introduction to Cyber-Physical Systems

BL40A2011 Introduction to Cyber-Physical Systems

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Electrical Engineering 100%
Responsible persons	Pedro Juliano Nardelli, Responsible teacher Minna Loikkanen, Administrative person
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: kokonaan verkossa / full digi

Prerequisites

EN: Scientific computing, basics of probability theory, and basics of Boolean algebra

Learning outcomes

EN: After the course, the student will be able to:
(1) understand what cyber-physical systems (CPSs) are;

(2) define uncertainty, information, network, decision-making and action as concepts;

(3) analyze CPSs as constituted by three necessary layers with three cross-layer operations;

(4) indicate enabling technologies of CPSs;

(5) design and assess the performance of simple CPSs, as well as critically discuss their social impact.

Content

EN: 1) Introduction to CPSs;
2) Core concepts: system, uncertainty, information, network, decision-making, and action;

3) The three-layers of CPSs;

4) Enabling information and communication technologies;

5) Examples of CPSs and their social impact.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG): 3 good health and well-being; 7 affordable and clean energy; 9 industry, innovation and infrastructure; 11 sustainable cities and communities; 12 responsible consumption and production; 13 climate action.

Study materials

EN: Textbook, simulations in python produced by the teachers and other suggested materials.

Literature

Nardelli, Pedro HJ. Cyber-physical Systems: Theory, Methodology, and Applications. John Wiley & Sons, 2022. Available at LUT Primo.

https://www.wiley.com/en-us/Cyber+physical+Systems%3A+Theory%2C+Methodology%2C+and+Applications-p-9781119785187

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	4 cr
Course Completion		4 cr

BL40A1812 Introduction to Embedded Systems

BL40A1812 Introduction to Embedded Systems

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Electrical Engineering 100%
Responsible persons	Minna Loikkanen, Administrative person Pietari Puranen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Equivalences (free text field)

EN: Replaces the course BL40A1811 Johdanto sulautettuihin järjestelmiin, 6 ECTS.

Learning outcomes

EN: The course is an introduction to embedded systems. Upon completion of the course the student will be able to: 1. identify different microprocessor types and peripheral components in embedded systems, 2. describe the operation principles of an embedded system and its peripheral components, 3. program and test applications to an embedded system by using C language.

Content

EN: Architecture of a microprocessor, instruction set and operation, microcontrollers, memories, peripherals, embedded system design, programming and development of applications, embedded system design examples.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG): 7 Affortable and clean energy, and 9 Industry Innovation and Infrastructure.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course Completion		6 cr

BH40A0102 Basics of Renewable Energy Engineering

BH40A0102 Basics of Renewable Energy Engineering

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Energy Technology 100%
Responsible persons	Aki Grönman, Responsible teacher Minna Loikkanen, Administrative person
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta, Lahti

Learning outcomes

EN: Upon completion of the course the students will be able to: 1. describe the operation principle of various power plant types using renewable energy sources, 2. compare the benefits and disadvantages of power plants using renewable energy sources in relation to each other and conventional power plants, 3. understand the factors affecting power plant efficiencies, and 4. select suitable power plants for a given purpose. The course supports development of the following work life expertise and skills: Mathematics and natural sciences, practical application of theories, working independently, problem solving, information retrieval, time management and prioritizing tasks, analytical thinking skills.

Content

EN: Wind power, wind turbine types, water power, hydrogen economy and fuel cells, wave power, tidal power, biomass and biogas utilization, solar power, geothermal energy, principles and efficiency calculations of renewable energy power plants. The course is related to P2X theme.

Additional information

EN: Blended learning. The course is related to SDG 7: affordable and clean energy.

Study materials

EN: Lecture material in Moodle. Further material will be announced during lectures.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	3 cr
¤LAB: Course Completion		3 cr

BH50A0220 Energy Systems

BH50A0220 Energy Systems

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Energy Technology 100%
Responsible persons	Minna Loikkanen, Administrative person Esa Vakkilainen, Responsible teacher Samuli Honkapuro, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN:

Prerequisites

EN: Understanding of basic units.

Learning outcomes

EN: Upon completion of the course the student will be able to 1. recognize the world's energy resources and the most central factors affecting their utilization, 2. describe different types of energy production processes 3. recognize the equipment and terminology related to energy technology, 4. describe typical energy distribution, 5. recognize benefits and drawbacks of energy systems, 6. define economic constraints to energy processes, and 7. explain the fundamentals of the electricity markets, including price formation principles and role of the key actors.
Completion of the course supports the development of the following generic competences for working life: Information retrieval, practical application of theories, working independently, written communication and time management and prioritizing tasks.

Content

EN: Global energy resources and energy demand. Energy conversion processes and process equipment. Energy transfer and distribution systems. Environmental impacts of energy technology. Economics of energy systems. Fundamentals of electricity market.

Additional information

EN: Blended learning
SDGs: 7 affordable and clean energy, 11 sustainable cities and communities.

Study materials

EN: Celik, Serdar, Sustainable Energy Engineering Fundamentals and Applications, 2023; Boyle, Godfrey, Renewable Energy: Power for a Sustainable Future, 2012; Lecture notes.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	5 cr
¤LAB: Course Completion		5 cr

BH40A1401 Fluid Mechanics I

BH40A1401 Fluid Mechanics I

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Energy Technology 100%
Responsible persons	Minna Loikkanen, Administrative person Ahti Jaatinen-Värri, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta; Lahti. The course will be lectured every other week in Lappeenranta and Lahti. See time table and Moodle for details

Learning outcomes

EN: Understands the basic concepts of fluid dynamics and is able to apply them
Understands the basics of hydrostatics and is able to apply them
Understands the basic flow phenomena, equations describing them is able to apply them to solve problems
Understands the working principles of different flow meters and is able to choose a correct flow meter for each application
Is able to apply skills accumulated during the course for pipe flow and is able to solve pipe flow problems.
Completion of the course supports the development of the following generic competences for working life: mathematics and natural sciences, practical application of theories, working independently, problem solving, and time management and prioritizing tasks.

Content

EN: 1) Introduction: general overview of fluid mechanics in different fields of engineergin, definition of fluid and Newtonian fluids, shear stress in fluid flow surface tension.
2) Hydrostatics: hydrostatic pressure, standard atmosphere, buoyancy and stability of floating bodies.

3) Integral equations: continuity equation (conservation of mass), momentum equation, angular momentum equation, energy equation and Bernoulli equation.

4) Pipe flow: pressure loss in pipes, pipes in series and parallel, solving pipe flow problems, friction in pipe flow.

5) Flow measurements: overview of flow temperature and pressure measurements, flow velocity measurements, volume/mass flow measurement techniques.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG): 6 clean water and sanitation, 7 affordable and clean energy

Study materials

EN: Course text book: White, F. M., Fluid mechanics. 5th ed.
Additional material in Moodle.

Alternative text books:Munson, B. R., Young, D. F., Okiishi, T.H.: Fundamentals of Fluid Mechanics. Bohl, W.: Teknillinen virtausoppi (Technische Strömungslehre): Durst: Fluid Mechanics: An introduction to the Theory of Fluid Flows (e-book)Krause: Fluid Mechanics : With Problems and Solutions, and an Aerodynamic Laboratory (e-book)

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	3 cr
¤LAB: Course Completion		3 cr
Method 2	Recurrence 1: 3. period	3 cr
¤LAB: Course Completion		3 cr

BH10A1900 Fundamentals of Energy Technology

BH10A1900 Fundamentals of Energy Technology

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	2 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Energy Technology 100%
Responsible persons	Minna Loikkanen, Administrative person Ahti Jaatinen-Värri, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: kokonaan verkossa / full digi

Learning outcomes

EN: Upon completion of the course a student 1. Understands the laws of thermodynamics and apply thermal properties, 2. understands the fundamentals of fluid mechanics and is able to solve typical problems, 3. Has understanding of the basics of heat transfer and is able to solve typical problems, 4. understands the different power generation technologies and is be able to calculate material and energy balances, and 5.
Independently study and follow progress of energy technology.
Completion of the course supports the development of the following generic competences for working life: know-how on own field, mathematics and natural sciences, practical application of theories, working independently,

Content

EN: Thermodynamics: basic concepts, thermodynamic properties, conservation equations, open system energy analysis, 1st and 2nd law of thermodynamics, thermodynamic cycles, Carnot efficiency, exergy.
Heat transfer: fundamentals, conduction, convection, heat exchangers, introduction to radiation.

Fluid Dynamics: hydrostatics, conservation of mass, linear momentum equation, Bernoulli equation, pipe flow.

Power plant engineering: Ideal and real Rankine cycles, gas turbine power cycle.

Bioenergy: Bioenergy in the world, biomass combustion, challenges in the biomass use, bioenergy in EU, future use of biomass.

Additional information

EN: The course is aimed for students who want to independently brush up their basic knowledge of subjects needed in Master';s studies.

Study materials

EN: Course materials in Moodle.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-Summer	2 cr
Course Completion		2 cr
Method 2	Recurrence 1: 1. period-Summer	2 cr
Course Completion		2 cr

BH30A0020 Introduction to Nuclear Power Engineering

BH30A0020 Introduction to Nuclear Power Engineering

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Energy Technology 100%
Responsible persons	Minna Loikkanen, Administrative person Anne Jordan, Responsible teacher Giteshkumar Patel, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta

Learning outcomes

EN: Upon completion of the course the students will be able to define the principles of radiation and its health effects, perform simplified analyses of radiation doses, define the principles of nuclear energy utilization and nuclear safety, understand the overall structure of nuclear power plants, understand the working principles of most common nuclear reactors, classify nuclear accidents on the international INES scale, define the principles of nuclear fuel cycle and nuclear waste management, and compare the utilization of nuclear energy in Finland and worldwide.
Completing the course supports the development of the following general working life skills: mathematics and natural sciences, independent work, and problem solving.

Content

EN: Radiation and its occurrence. Health effects of radiation, principles of radiation protection. Utilization of nuclear power (fission and fusion). Basic structure of nuclear reactors. Fundamentals of pressurized and boiling water reactor designs. Fundamentals of nuclear safety. Fuel cycle and nuclear waste management. Accidents and their classification (INES scale). Utilization of nuclear energy in Finland and worldwide.

Additional information

EN: Other additional information
***

This course is available only to nationals of countries that have implemented adequate nuclear non-proliferation under the rules of the International Atomic Energy Agency (IAEA).

***

Course BH30A0020 and course BH30A0001 Ydinenergian yleiskurssi are mutually exclusive.

***

The course is related to UN's Sustainable Development Goals (SDG): 7 affordable and clean energy, 9 industry, innovation and infrastructure, 13 climate action.

Study materials

EN: Lecture notes.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	3 cr
Course Enrolment		0 cr
Course Assessment		3 cr

BH60A5900 Climate Change

BH60A5900 Climate Change

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Environmental Technology 100%
Responsible persons	Michael Child, Responsible teacher Annukka Ilves, Administrative person Sanni Väisänen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta and Lahti

Learning outcomes

EN: The content and learning outcomes of the Climate Change course are based on:
- classifying climate change as a scientific phenomenon,
- explaining how it can be prevented (mitigation),
- summarizing how adaptation to it is possible.

In addition to discussing the scientific basis, the objectives of the course also include discussing the theme of climate change by:
- analyzing it as a global human challenge
- interpreting it as an ethical challenge to our understanding of human life

- commenting on it as a challenge related to the students' fields of study
- appraising it as a challenge regarding the students' personal roles as influencers

Content

EN: Introduction to Climate change: climate system, future of the climate, impacts, mitigation and adaptation, big issues, applied perspectives and assignments.

Additional information

EN: NOTE! BH60A7400 Climate.Now and BH60A5900 Climate Changeare alternative, both cannot be included in the degree!
***

Blended learning. Mandatory contact sessions once/month. Mandatory weekly group meetings.

***

The course is related to the UN's Sustainable Development Goals (SDG):

1 no poverty

2 zero hunger

3 good health and well-being

4 quality education

5 gender equality

6 clean water and sanitation

7 affordable and clean energy

8 decent work and economic growth

9 industry, innovation and infrastructure

10 reduced inequalities

11 sustainable cities and communities

12 responsible consumption and production

13 climate action

Study materials

EN: To be provided on course Moodle pages.

Literature

https://digicampus.fi/login/index.php

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	5 cr
Course Completion		5 cr

BH60A7200 Circular.now

BH60A7200 Circular.now

Curriculum period	2024-2025
Validity period	since 1 Aug 2024

Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Environmental Technology 100%
Responsible persons	Sanni Väisänen, Responsible teacher Annukka Ilves, Administrative person
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta, Lahti, kokonaan verkossa / full digi

Learning outcomes

EN: After successfully completing the course, students are able to:
1. explain the targets of circular economy and understand possibilities to implement circular economy in different sectors,
2. understands capability of the selected products, production systems and services to fulfil the requirements of circular economy

Content

EN: Introduction to circular economy: circular economy aspects related to food systems, forest systems, product design, transportation sector and sharing economy.

Additional information

EN: ***The course is related to UN's Sustainable Development Goals (SDG):
7 affortable and clean energy, 9 industry, innovation and infrastructure, 11 sustainable cities and communities, 12 responsible consumption and production, 13 climate action.

NOTE! BH60A7200 Circular.Now and BH60A5401 Introduction to Circular Economy are alternative, both cannot be included in the degree!

Submitted tasks will be evaluated at the end of each period.

Study materials

EN: Circular.Now MOOC material in DigiCampus.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-Summer	3 cr
Course completion		3 cr
Method 2	Recurrence 1: 1. period-Summer	3 cr
Course completion		3 cr

BH60A0002 Basic Course in Environmental Technology A

BH60A0002 Ympäristötekniikan perusteet A

Curriculum period	2024-2025
Validity period	since 1 Aug 2024

Credits	6 cr
Languages	English, Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Environmental Technology 100%
Responsible persons	Mika Horttanainen, Responsible teacher Annukka Ilves, Administrative person Ursula Salakka, Responsible teacher Mari Hupponen, Responsible teacher Amirsohrab Falsafi, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta

Learning outcomes

EN: Upon completion of the course the student is expected to be able to
1. list the most important sustainability challenges posed by production and communities,
2. name the most typical ways of controlling sustainability challenges,
3. use environmental engineering terminology,
4. write a seminar report, act as an opponent, and give a poster presentation at the seminar,
5. apply system analytical and life cycle thinking, and
6. explain how other technology fields are connected to environmental engineering.

Content

EN: Sustainability challenges at different spatial scales, related e.g. to production, consumption, solid waste, water use, air quality, energy transition, food systems, household consumption and the built environment. Technical solutions and steering mechanisms for the management of the sustainability challenges. The course also introduces life cycle thinking.

Additional information

EN: Blended learning
***
The course is related to UN's Sustainable Development Goals (SDG): 2 zero hunger, 6 clean water and sanitation, 7 affordable and clean energy, 9 industry, innovation and infrastructure, 11 sustainable cities and communities, 13 climate action

Study materials

EN: Moodle, lecture materials, additional reading related to lecture topics

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-4. period	6 cr
Course Completion		6 cr
Method 2	Recurrence 1: 1. period-4. period	6 cr
Course Completion		6 cr
Method 3	Recurrence 1: 1. period-4. period	6 cr
Course Completion, in English		6 cr
Method 4	Recurrence 1: 1. period-4. period	6 cr
Course Completion, in English		6 cr

BH60A6801 Sustainable.now

BH60A6801 Sustainable.now

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3-5 cr
Languages	English, Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Environmental Technology 100%
Responsible persons	Annukka Ilves, Administrative person Miika Marttila, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: full digi

Learning outcomes

EN: After successfully completing the course, students:
1) Understand the intersectional, partly contradictory, goals and interdimensionality of the climate challenge and the challenges of sustainable development.

2) Are familiar with the multidisciplinary links between climate change and different goals of sustainable development, and will identify different tools for solving problems.

3) Outline the importance of positivity and solution orientation both through the global responsibility of individuals and through the transformation of existing structures.

Content

EN: Sustainable.now is a basic course for anyone interested in sustainable development and climate change. The principles of sustainable development will be linked to the 1.5 degree climate target.
- Ecological sustainability

- Social sustainability

- Economic sustainability

- Cultural sustainability

The course provides a solid knowledge package on the concept of sustainable development and its ecological, social, economic and cultural dimensions, as well as the connections and tensions between them. The ethical perspective that runs through the course provides a basis for considering sustainable development also as a political and normative concept. The course also emphasizes the importance of agency and the different roles of the individual. Students will be given the opportunity to look at the sustainability of their own lifestyle in terms of individual choices, but on the other hand, sustainability and climate challenges will also be presented as a structural and systemic problem.

Additional information

EN: The course is a part of Climate University – a multidisciplinary digital learning platform in sustainability challenges. The flexible study paths to the working life is a collaboration project of eleven Finnish universities.
The student can choose either 3 or 5 credits option upon the need.

The course is related to UN's Sustainable Development Goals (SDG):

1 no poverty

2 zero hunger

3 good health and well-being

4 quality education

5 gender equality

6 clean water and sanitation

7 affortable and clean energy

8 decent work and economic growth

9 industry, innovation and infrastucture

10 recuded inequalities

11 sustainable cities and communities

12 responsible consumption and production

13 climate action

14 life below water

15 life and land

16 peace, justice and strong institutions

17 partnership for the goals

Study materials

EN: Material and Literature specified in MOODLE course overview.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 2. period Recurrence 2: 4. period	6 cr
Course Completion in English		3 cr
Course completion in Finnish		3 cr
Method 2	Recurrence 1: 2. period, 4. period	10 cr
Course completion in English		5 cr
Course completion in Finnish		5 cr
Method 3	Recurrence 1: 2. period, 4. period	3 cr
Course Completion in English		3 cr
Method 4	Recurrence 1: 2. period, 4. period	5 cr
Course completion in English		5 cr

BH60A6000 Basic Course in Life Cycle Assessment

BH60A6000 Basic Course in Life Cycle Assessment

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5

University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Environmental Technology 100%
Responsible persons	Annukka Ilves, Administrative person Sanni Väisänen, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta

Learning outcomes

EN: After successfully completing the course, students are able to:
· describe the main phases of Life Cycle Assessment (LCA) method and the potential application areas of Life Cycle Assessment,
· prepare his/her individual LCA report following the guidelines of ISO standards,
· use the GaBi life cycle software in a basic level
· explain the importance of assumptions for the interpretation of LCA results

Content

EN: Application areas of LCA, use of ISO standards: goal and scope setting, inventory analysis, impact analysis, result interpretation. One guided exercise for software. LCA documentation. The course is related to sustainability.

Additional information

EN: ***The course is related to UN's Sustainable Development Goals (SDG):
6 Clean Water and Sanitation, 7 Affordable and Clean Energy, 9 Industry, Innovation and Infrastructure, 11 Sustainable Cities and Communities, 12 Responsible Consumption and Production, 13 Climate Action

Study materials

EN: ISO 14040, ISO 14044, other material informed in the first lecture.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period Recurrence 2: Summer	4 cr
Course Completion		4 cr

CS30A1365 Sustainability-oriented innovation

CS30A1365 Sustainability-oriented innovation

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Industrial Engineering and Management 100%
Responsible persons	Nina Tura, Responsible teacher Armi Rissanen, Administrative person
Study level	Intermediate studies

Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: kokonaan verkossa / full digi

Prerequisites

EN: Students should have accomplished: Innovaatio- ja teknologiajohtamisen peruskurssi (Basics in innovation and technology management) or equivalent.

Recommended prerequisites

CS30A0952 Innovation and Technology Management: a Basic Course

Learning outcomes

EN: The course aims to familiarize students with the concept of sustainability-oriented innovation and its applications to innovation management.
Aims:
After completion of the course, students will be able to:
1) Understand and explain the key concepts and theoretical principles related to sustainability and innovation.
2) To be able to examine the different types of sustainability-oriented innovations and companies executing such innovations.
3) Recognize and understand the characteristics of new emerging concepts, markets and business models (such as circular economy) having potential for sustainable value creation.
4) Critically examine sustainable value creation including possibilities for negative value creation (e.g. tensions and trade-offs)
5) To be able to critically analyze organizations' development and management requirements related to sustainability-oriented innovation.
6) To understand an apply practically learned principles and concepts in relation to innovation management practices and innovation processes.

Content

EN: The idea of the course is to learn and understand the links between innovation management and sustainability and familiarize students with the emerging concepts of sustainability-oriented innovation. The course aims to enhance the development of students' sustainability competences (e.g. critical and anticipatory thinking, collaboration, communication, strategic action and systems thinking) to be used in future decision-making.

Additional information

EN: Course utilizes Moodle-platform.
***
Opintojakso liittyy YK:n kestävän kehityksen tavoitteisiin (SDG): 8 ihmisarvoista työtä ja talouskasvua, 9 kestävää tuloksellisuutta ja innovaatioita ja infrastruktuureja, 11 kestävät kaupungit ja yhteisöt, 12 vastuullista kuluttamista, 13 ilmastotekoja, 17 yhteistyö ja kumppanuus

Study materials

EN: Recent academic literature and online lectures.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	3 cr
Course Completion		3 cr
Method 2	Recurrence 1: 3. period	3 cr
Course Completion		3 cr

LES10A260 Technical Computing Software

LES10A260 Technical Computing Software

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LUT School of Energy Systems 100%
Responsible persons	Aleksi Mankonen, Responsible teacher Annukka Ilves, Administrative person Minna Loikkanen, Administrative person Juho Ratava, Responsible teacher Cassia Santos Nunes Almeida, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lahti and Lappeenranta

Prerequisites

EN: Recommended: Programming skills or a course in the basics of some programming language.

Recommended prerequisites

LES10A210 Engineering Mathematics II

CT60A0250 Fundamentals of Programming for international programs

Learning outcomes

EN: After the course, the student is an elementary-level user of some computational development environment and is familiar with finding its documentation and implementing numerical methods using the development environment. The student has been introduced to software engineering and can define and solve simple computational problems using the development environment or a spreadsheet program. The students can use and produce technical information and assess information produced by themselves and others.

Content

EN: The course introduces the student to a computational development environment such as Matlab/Simulink, Octave, or Scilab. Use of spreadsheet programs for problem-solving. Improving the student's knowledge in numerical methods and introducing methods to show mathematical and technical information (LaTeX and/or Mathcad).

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG): 4 quality education, 5 gender equality and 10 reduced inequalities

Study materials

EN: The course material is disseminated on Moodle. Optionally, the Matlab Academy courses "Matlab Onramp" and "Matlab Fundamentals" may be used to supplant the material.

Literature

Kreyszig, Erwin: Advanced Engineering Mathematics

Valentine, D.T.; Hahn, B.D.: Essential MATLAB for Engineers and Scientists

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	4 cr
Course Completion		4 cr

LES10A410 Engineering Project Work

LES10A410 Engineering Project Work

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5-10 cr
Languages	English, Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LUT School of Energy Systems 100%
Responsible persons	Michael Child, Responsible teacher Alex Rosu, Responsible teacher Annukka Ilves, Administrative person
Study level	⚠ [information missing]
Study field	⚠ [information missing]

Recommended prerequisites

BK10A6101 Technical Documentation and 3D Modeling

BK10A6300 Engineering Design

Learning outcomes

EN: After successfully completing the mandatory part of the course , students are able to:

- apply knowledge gained from earlier course work to practice
- improving time management, critical thinking and problem-solving skills
- collaborate effectively and systematically in a multicultural environment
- develop creative ideas and solutions to real-world problems
- planning and implementing a product development project as part of development team based on a written project plan.
- design and implement a product or service
- incorporate end-user or customer needs into product/service design
- give and receive feedback on the effectiveness of project activities
- making a connection between innovation, design, and production with the sustainable development goals (SDGs)

Additionally, depending on amount of optional credits:

- use tools and other resources to develop a prototype.
- testing a prototype to come up with further development suggestions while also reporting the results of the project
- presenting a built prototype to a real audience of peers and invited corporate sponsors during the spring's JHC seminar at Lappeenranta campus or other event
- prepare supplementary plan for further development of the prototype

Content

EN: The course enhances experience in challenge based learning through a learning-by-doing approach. Students will be engaged in solving a specific real-world problem or answering a complex question related to one of the core areas of expertise (Electrical engineering, Energy technology, Mechanical engineering, Environmental Technology etc.). In the end, students will demonstrate new knowledge and skills by developing a useful product or service in cooperation with possible corporate sponsors and presenting it to a real audience.
Students will receive extended instruction on the nature of challenge based learning, and then apply this knowledge to the project work. First steps will involve defining the question, problem or challenge that will serve as the basis of the project work. This will be followed by the design of a prototype product or service (and based on achievable additional credits, the construction phase of the prototype will also be involved). Throughout the project work, students will give, receive and use feedback to further improve their process and prototypes. Possible corporate sponsors may also provide feedback throughout the project. After refinement, the designed product/service and possible prototype will be explained, displayed, and presented to peers and possible corporate sponsors.

Additional information

EN: Blended learning
***

Students can participate in their group's project work on both campuses (Lappeenranta/Lahti)

***

It is possible to achieve a total of 10 credits in the course:

- mandatory 5 ECTS are gained during periods 1-2
- additional/optional 5 ECTS can be gained during periods 3-4

***

The course is related to the UN's Sustainable Development Goals (SDG), depending on the project chosen:

1) no poverty

2) zero hunger

3) good health and well-being

4) quality education

5) gender equality

6) clean water and sanitation

7) affordable and clean energy

8) decent work and economic growth

9) industry, innovation and infrastructure

10) reduced inequalities

11) sustainable cities and communities

12) responsible consumption and production

13) climate action

14) life below water

15) life and land

16) peace, justice and strong institutions

17) partnership for the goals

Study materials

EN:

- Material available in Moodle
- J. Michael Bennett, Project Management For Engineers, World Scientific Publishing Co Pte Ltd, 2014, ISBN 978981322485
- Pahl G. ; Beitz W., 1996. Engineering Design: A Systematic Approach, London, Springer. 543 s.
- Ulrich K.T. ; Eppinger S.D. 2000. Product Design and Development. New York, Irwin McGraw-Hill. 358 s.
- Virkkala V., 1994. Luova ongelmanratkaisu. Helsinki. 292 s.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-4. period	5-10 cr
Participation in teaching		5-10 cr

BK10A6300 Engineering Design

BK10A6300 Engineering Design

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Mechanical Engineering 100%
Responsible persons	Annukka Ilves, Administrative person Changyang Li, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta and Lahti

Prerequisites

EN: BK10A5800 Engineering Mechanics 1 (or equivalent);
BK10A6000 Engineering Mechanics 2 (or equivalent);

Equivalences to other studies

BK65A0203 Engineering Design

Learning outcomes

EN: After successfully completing the course, students are able to:

- work in a constructive and systematic way as part of a product development;
- apply creative ideation in the product development process;
- compare and apply the methodologies of product planning;
- select the suitable and necessary machine elements for the product;
- explain the interactions of basic machine elements.

Content

EN: The content of the course includes:

- Fundamentals of a systematic product planning and systematic machine design process, including idea generation, conceptual design, embodiment design, details design, manufacturing, etc;
- Knowledge of different machine elements, including gears, bearing, key, shaft, coupling, fasteners, etc.
- Knowledge about reverse engineering, design for manufacturing and assembly, etc...

Additional information

EN: Blended learning

Study materials

EN: The study materials include:

- Lecture materials;
- Michael B. Spektor, 2018, Machine Design Elements and Assemblies.

Literature

Michael B. Spektor, 2018, Machine Design Elements and Assemblies.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	3 cr
Course Completion		3 cr
Method 2	Recurrence 1: 3. period-4. period	3 cr
Course Completion		3 cr

BK10A6400 Basics of FE-Analysis

BK10A6400 Basics of FE-Analysis

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Mechanical Engineering 100%
Responsible persons	Marko Matikainen, Responsible teacher Annukka Ilves, Administrative person Antti Ahola, Responsible teacher Changyang Li, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta

Prerequisites

EN: BK10A6000 Engineering Mechanics 2 completed

Equivalences to other studies

BK80A2800 FE-analysis, Elementary Course

Learning outcomes

EN: Upon successful completion of the course, the student will be able to:

- Understand the mathematical and physical underpinnings of the displacement-based Finite Element (FE) method.
- Analyse statically loaded mechanical structures using both MATLAB and commercial FE-analysis software.
- Tackle the eigenvalue problems of mechanical structures with MATLAB and commercial FE-analysis software.
- Utilise Artificial Intelligence (AI) based tools in developing and coding a basic FE solver in MATLAB.
- Evaluate the robustness and accuracy of the FE solutions.

Content

EN: The objective of the lectures is to impart a fundamental understanding of the elemental stiffness matrices for rod, beam, and solid structures, the assembly of the global stiffness matrix, the management of boundary conditions and loads, and the solution strategies for both static and linearised dynamic problems analysed using the finite element method. The exercises will introduce FE analysis using commercial FE software.

Additional information

EN: ***
The course is related to UN's Sustainable Development Goals (SDG): 9 Industry, Innovation and Infrastructure, 11 Sustainable Cities and Communities, 12 Responsible consumption and Production, 13 Climate Action, 17 Partnerships for the Goals

Study materials

EN: Lectures notes in the Moodle.

Literature

Cook, Robert D., Finite element modeling for stress analysis

Hughes, Thomas J.R., Finite Element Method: Linear Static And Dynamic Finite Element Analysis

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-2. period	4 cr
¤LAB/LUT: Course Completion		4 cr
Method 2	Recurrence 1: 1. period-2. period	4 cr
¤LAB/LUT: Course Completion		4 cr

BK10A6500 Engineering Mechanics 3

BK10A6500 Engineering Mechanics 3

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	7 cr
Languages	English
Grading scale	General scale, 0-5

University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LES, Mechanical Engineering 100%
Responsible persons	John Bruzzo Escalante, Responsible teacher Annukka Ilves, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction

Tweet text

EN: Location: Lappeenranta

Prerequisites

EN: BK10A5800 Engineering Mechanics 1 completed. BK10A6000 Engineering Mechanics 2 recommended.

Recommended prerequisites

BK10A5800 Engineering Mechanics 1

BK10A6000 Engineering Mechanics 2

Learning outcomes

EN: The student will complement the knowledge in the strength of material by studying loaded structures in 3 dimensions. It is expected that students who successfully complete the course will understand the statics of combined structures and frames and the influence of dynamic loads in the life of a part of a machine component.
After having passed the course the student will be able to:

- Characterize loading cases by finding out local stresses in different locations of the part. This includes curved beams also.

- Determine the maximum stresses and strains from loading cases using Mohr's circle

- Apply failure theories to assess if the part will fail or deform under the current loading situation.

- Include fatigue and life estimations of mechanical parts by applying the corresponding stress concentration factors produced by various loading cases and construction characteristics.

- Students will also expand their knowledge on a variety of applications related to the mechanics of materials, such as thick-wall shells, orthotopic materials, and more specialized failure theories based on energy methods.

Content

EN: INTRODUCTION. STATE OF STRESS STRESS-STRAIN RELATIONSHIP
STRESSES IN CURVED BARS. CURVED BEAM

THEORIES OF FAILURE.

DESIGN OF BEAMS AND SHAFTS

DEFLECTIONS OF BEAMS AND SHAFTS

BASICS OF FATIGUE IN DYNAMICALLY LOADED SHAFTS

FAILURE MECHANISMS ON THE BASIS OF OPERATIONAL CONDITIONS

THICK-WALLED SHELLS

BEHAVIOR OF ORTHOTROPIC MATERIALS AND COMPOSITE STRUCTURES

ST. VENANT'S THEORY FOR TORSION

BUCKLING OF COLUMNS. COLUMNS IN GENERAL

PRINCIPLE OF STATIONARY POTENTIAL ENERGY.

CASTIGLIANO'S THEOREM

DEFORMATION ENERGY AND FAILURE THEORIES

Additional information

EN: Will be lectured for the last time in the academic year 24-25!
Blended learning

Study materials

EN: Videos, PDF's and material given in the lectures

Literature

Hibbeler R.C, Engineering Mechanics, Statics.
Hibbeler, R.C., Mechanics of Materials.
Ugural A.C. and Fenster S.K., Advanced Strength and Applied Elasticity, 4th ed.
Ugural A.C. Mechanics of Materials. Hibbeler, Structural Analysis.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	7 cr
Course Enrolment		0 cr
Course Assessment		7 cr

CT60A4304 Basics of database systems

CT60A4304 Basics of database systems

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Jiri Musto, Responsible teacher Iflaah Salman, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta or Lahti

Prerequisites

EN: Introduction to Programming or equivalent.

Recommended prerequisites

CT60A0203 Fundamentals of Programming

Learning outcomes

EN: At the end of the course the student will be able to:
1.Design and model relational databases

2.Understand how the evolution of relational algebra led to SQL databases

3.Model real world problems with ER and transform the ER model to relational databases

4.Understand and solve issues related to relational database design, such as optimization and normalization

5.Implement relational databases in practice and embed them in applications

Content

EN: Database systems. Database design. Object-centric modeling and ER-modeling. Specifying relational models. SQL and object languages.
Perspectives into database design: How database is designed, how data is modeled, and what are data storage structures and access methods.

Transforming ER models to relational models, and then to relational databases. Basics to database programming: queries and other operations, database management, such as triggers. Implementing databases in practice and how to use SQL databases from other programs.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG):
9 industry, innovation and infrastructure

Study materials

EN: Beynon-Davies, P.: Database Systems, Palgrave Macmillan, Third Edition, 2004. Foster, Elvis, C.: Database Systems A Pragmatic Approach, Apress, 2014. Lecture notes and other material assigned at the course. Coronel, C., & Morris, S. (2019). Database Systems: Design, Implementation and Management (13th ed.). Cengage Learning.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	3 cr
Course Completion		3 cr
Method 2	Recurrence 1: 3. period	3 cr
Course Enrolment		0 cr
Course Assessment		3 cr
Method 3	Recurrence 1: 3. period	3 cr
Course Completion		3 cr

CT60A7650 Database Systems Management

CT60A7650 Database Systems Management

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%

Responsible persons	Jonna Naukkarinen, Administrative person Jiri Musto, Responsible teacher Iflaah Salman, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta or Lahti

Prerequisites

EN: Basics of database systemsObject-oriented programming

Compulsory prerequisites

CT60A4304 Basics of database systems

Learning outcomes

EN: At the end of the course students will be able to
1. Create a relational model and a relational database
2. Understand relational algebra and relational calculus
3. Design a database application, data distribution, and architectures for data storage, retrieval, and administration of a database management system
4. Apply scalability, performance, security, and authorization
5. Demonstrate the knowledge of concepts and principles underlying the functioning of database management systems and maintenance.

Content

EN: Relational model and relational database design. Database applications, data distribution and architectures. Data storage and retrieval, data scalability, performance, security, authorization. Modeling and programing for semi-structured data, secondary storage management.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG):
9 industry, innovation and infrastructure

Study materials

EN: Ramez Elmasri, Shamkant B. Navathe (2015), Fundamentals of Database Systems, 7th Edition, Published by Pearson. ISBN-13: 978-0-13-397077-7A. Hector Garcia-Molina, Jeffrey D. Ullman and Jennifer Widom: Database Systems : The Complete Book, Pearson Prentice Hall 2nd Edition, 2009
Coronel, C., & Morris, S. (2019). Database Systems: Design, Implementation and Management (13th ed.). Cengage Learning.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	3 cr
Course Completion		3 cr

CT60A5531 Software Project Management

CT60A5531 Software Project Management

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3-6 cr

Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Andrey Saltan, Responsible teacher Micheal Tuape, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta and Lahti

Prerequisites

EN: CT60A4002 Ohjelmistotuotanto (Software Engineering).

Equivalences to other studies

LM10A1000 Project Management

Learning outcomes

EN: At the end of the course students will be able to

1. Demonstrate knowledge of key Project Management concepts and terminology
2. Develop a project plan for the development of a commonly used software
3. Demonstrate knowledge of tools and techniques for monitoring quality control of IT projects
4. Understand the importance of defining and anticipating potential risks
5. Describe how to communicate project progress to all stakeholders
6. Explain the roles and duties and responsibilities of software project managers
7. Explain how to manage and staff software project teams
8. Describe how to manage stakeholder expectations
9. Identify issues that could lead to software project success or failure

Content

EN: The Software Project Management course introduces the fundamentals of project management, beginning with project definition through the post-project review. There will be an emphasis placed on applying project management concepts and techniques to software development projects. The following topics will be covered in the course:

1. Introduction to Software Project Management
2. Project Methodologies and Processes
3. Measurable Organizational Value and the Business Case
4. Project Managers, Teams, and Stakeholders
5. Project Scope, Structure, and Scheduling
6. Project Infrastructure, Resources, and Costs
7. Managing Project Quality
8. Managing Project Risks
9. Project Execution, Completion, and Control

Additional information

EN: 3 ECTS cr course implementation for the students in Lahti campus, 6 ECTS cr course implementation for the students in Lappeenranta campus. Note mode of study is blended learning, not full-digi (changed 16.8.2022).

Study materials

EN: To be announced in Moodle

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course Assessment (Lappeenranta)		6 cr
Course Enrolment (Lappeenranta)		0 cr
Method 2	Recurrence 1: 3. period-4. period	3 cr
Course Assessment (Lahti)		3 cr
Course Enrolment (Lahti)		0 cr
Method 3	Recurrence 1: 3. period-4. period	6 cr
Course Assessment (Lappeenranta)		6 cr
Course Enrolment (Lappeenranta)		0 cr

CT70A9110 Software Development Skills: Front-End

CT70A9110 Software Development Skills: Front-End

Abbreviation: CT00CM00

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Erno Vanhala, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta (online)

Prerequisites

EN: CT30A2803 User Interfaces and Usability
CT60A0203 Introduction to Programming (or equivalent)

Compulsory prerequisites

CT30A2803 User Interfaces and Usability

CT60A0203 Fundamentals of Programming

Learning outcomes

EN: 1. Develop practical skills for software development
2. Learn the best practices and approaches of software development

3. Develop the skilled expected in industry to work as a software developer.

Content

EN: This course aims give students a chance to create unique projects with a hands-on approach.

The course guides students to find their interest in software engineering skills and to help each student find their desired path in software developing in the future. There are also several other Software Development Skill courses available on different topics.

The goal in this course is to make a responsive webpage using html, CSS and a little JavaScript. These are the basic tools to make today's web-frontend. Students may use Bootstrap or animations in addition. The project focuses only on the layout, styles and the overall structure of the page.

Course is 100% online self-study.

Additional information

EN: ***

The course is related to UN's Sustainable Development Goals (SDG):9 industry, innovation and infrastructure, 10 reduced inequalities

Study materials

EN: Available online (Moodle)

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-Summer	3 cr
¤LAB/LUT: Course Completion		3 cr

CT70A9120 Software Development Skills: Mobile

CT70A9120 Software Development Skills: Mobile

Abbreviation: CT00CM02

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Erno Vanhala, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta (online)

Prerequisites

EN: CT30A2803 User Interfaces and Usability
CT60A0203 Introduction to Programming (or equivalent)

Compulsory prerequisites

CT30A2803 User Interfaces and Usability

CT60A0203 Fundamentals of Programming

Learning outcomes

EN: 1. Develop practical skills for software development
2. Learn the best practices and approaches of software development

3. Develop the skilled expected in industry to work as a software developer.

Content

EN: This course aims give students a chance to create unique projects with a hands-on approach.
The course guides students to find their interest in software engineering skills and to help each student find their desired path in software developing in the future. There are also several other Software Development Skill courses available on different topics.

The goal in this course is to make an Android app with Android Studio. The app should have basic functionality with buttons and views. This course aims to teach the basics of mobile development.

Course is 100% online self-study.

Additional information

EN:
***

The course is related to UN's Sustainable Development Goals (SDG):9 industry, innovation and infrastructure, 10 reduced inequalities

Study materials

EN: Available online (Moodle)

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-Summer	3 cr
¤LAB/LUT: Course Completion		3 cr

CT70A9140 Software Development Skills: Full-Stack

CT70A9140 Software Development Skills: Full-Stack

Abbreviation: CT00CM01

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Erno Vanhala, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta (online)

Prerequisites

EN: CT30A2803 User Interfaces and Usability
CT60A0203 Introduction to Programming

CT60A2411 Object-Oriented Programming

CT60A4304 Basics of Database Systems
(or equivalent)

Compulsory prerequisites

CT30A2803 User Interfaces and Usability

CT60A0203 Fundamentals of Programming

CT60A2411 Object-Oriented Programming

CT60A4304 Basics of database systems

Learning outcomes

EN: 1. Develop practical skills for software development
2. Learn the best practices and approaches of software development

3. Develop the skilled expected in industry to work as a software developer.

Content

EN: This course aims give students a chance to create unique projects with a hands-on approach.

The course guides students to find their interest in software engineering skills and to help each student find their desired path in software developing in the future. There are also several other Software Development Skill courses available on different topics.

The course gives the student basic understanding of full-stack development. The goal is to create a basic front- and back-end and bundle them together as a complete system.

The focus is to understand the bigger picture and how to bundle different software components together to create a working program. You will learn how to use MEAN-stack as a full stack tool bundle to create an app from scratch.

Course is 100% online self-study.

Additional information

EN: ***

The course is related to UN's Sustainable Development Goals (SDG):9 industry, innovation and infrastructure, 10 reduced inequalities

Study materials

EN: Available online (Moodle)

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-Summer	3 cr
¤LAB/LUT: Course Completion		3 cr

CT10A7052 Software Engineering work practise

CT10A7052 Software Engineering work practise

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Ari Happonen, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta / OnLine

Prerequisites

EN: It is highly recommended, that the participating student has already collected around 90 ECTS or more study points, before participating into this course.

Learning outcomes

EN: Students will learn about current trends and realities related to the software engineering jobs, work activities young recruits typically become in contact in first few years and how digitalization and digital transformation of worklife might change academic and private organization near future careers and expectations put on students skills, when selected onf first study area related jobs.
Course assignments are designed to give a glimpse into the current work-life skill set expectations, connected to the yearly changing context, based on lectures given by industry and university visiting lecturers. The course e.g. connects work life RDI activities on software level and how that affects our everyday life and how students should prepare to future work-life.

After completing the course student will be able to:
1. utilize the course knowledge into real life cases
2. explain more clear sense on future work-life skill set expectations including lifelong learning
3. evaluate own believes of work-life expectations into presented ones
4. apply orally given experts know-how into another use case context
5. evaluate different software engineering career paths compared to own skill set, knowledge base and motivation areas

Content

EN: The course is based on a series of visiting lectures given by the researchers / professors from LUT and lectures given by yearly changing industry and public sector experts and company representatives. The lectures introduce students to research, industry work practices / expectations towards students knowledge base on work practices e.g. when applying and working in junior positions. Most lectures are connected to course tasks related to the lecture context (e.g. research / skill building task on industry area of the visiting lecturer or reflecting a topic specific research article, small ICT jobs related problem solving task etc.). All tasks are evaluated, and tasks can also include follow up discussions in the lectures. Some lectures may include e.g. live demonstrations of tools used in industry, like data-analysis, software testing/development and UI modeling tools. Within the lectures, students shall learn details from software engineering positions related daily work practices, receive software engineering career path building guideline points and have access to ask direct questions from the visiting lecturers. Visiting lectures may explain the insight on how to achieve a specific career goals (e.g. project/product manager positions) or practical view from school to funder of your own startup and working as ICT field CEO.

Additional information

EN: Note! Course replaces CT10A7051 Area Expert's Views on Future Work-life Expectations and can not be included in the same degree.
The tasks evaluated in the course are connected to the lectures given by the teacher in charge and the visiting lecture(s). Students should take this into account as previous years tasks are considered case by case, will the be accepted in follow up teaching years.

The course is related to UN's Sustainable Development Goals (SDG): 4 quality education, 5 gender equality, 8 decent work and economic growth, 9 industry, innovation and infrastructure, 10 reduced inequalities, 17 partnership for the goals

Study materials

EN: Self study on Jalali S., Wohlin C., Systematic Literature Studies: Database Searches vs. Backward Snowballing.
Other material shall be given and presented in the course lectures. In addition, some needed support material for course tasks can be given within the release of the tasks.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	3 cr
Course Completion		3 cr
Method 2	Recurrence 1: 3. period-4. period	3 cr
Course Completion		3 cr

CT30A2804 User Interfaces and Usability

CT30A2804 Käyttöliittymät ja käytettävyys

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	Finnish, English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Antti Knutas, Responsible teacher Joanna Saad-Sulonen, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: Location: Lappeenranta

Prerequisites

EN: Introduction to Programming
Software Engineering

Compulsory prerequisites

CT60A0203 Fundamentals of Programming

CT60A4002 Software Engineering

Learning outcomes

EN: At the end of the course the student will be able to:
1. Understand what good usability is, how user experience relates to it, and which factors contribute to both.

2. Know about the evolution of interfaces and how they led to current practices.

3. Design interactive systems that provide a good usability.

4. Understand the most common usability techniques and evaluation methods.

5. Design and conduct a small user study using basic HCI research methods.

6. Use the findings of a user study to create a conceptual design of an interactive system.

7. Apply design knowledge to most common contemporary interactive environments, such as mobile and web.

8. Realize the designs using a current front-end programming language.

Content

EN: Design principles of web and mobile interfaces. Human-centered design process. Understanding users through basic HCI research methods and applying this knowledge in design. Design techniques, such as use cases, prototyping, story-boarding, and usability evaluation. Usability and user experience as concepts. Usability standards in interface design and usability testing. Design patterns and considerations of designing interfaces for modern software systems. Basics of front-end programming for user interfaces.

Additional information

EN: The course involves simple programming exercises and a programming project in Python. Completing the introduction to programming with a passing grade (or equivalent knowledge) is strongly recommended. This course is taught in person in Lappeenranta and Lahti. The course has some online and blended learning opportunities, but attendance at scheduled course events can be required to pass the course. The course has both individual and teamwork components. Attending to team design events during normal studying hours can be required to pass the course.

The course is related to UN's sustainable development goals (SDG): 4 quality education, 8 decent work and economic growth, 9 industry, innovation and infrastucture.

Study materials

EN: Sharp, H., Rogers, Y., Preece. J. 2023. INTERACTION DESIGN: beyond human-computer interaction. Sixth Edition. Wiley.
Ideo.org (2015). The Field Guide to Human-Centered Design. PDF available at https://www.designkit.org/resources/1

Other materials announced during the course.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course Completion		6 cr
Method 2	Recurrence 1: 3. period-4. period	6 cr
Course Completion		6 cr

CT70A9150 Introduction to DevOps

CT70A9150 Introduction to DevOps

Curriculum period	2024-2025
Validity period	since 1 Aug 2024

Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LENS, Software Engineering 100%
Responsible persons	Jonna Naukkarinen, Administrative person Erno Vanhala, Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

Tweet text

EN: 100 %verkossa/Full digi

Prerequisites

EN: Basics of Linux (or equivalent knowledge),CT60A0203 Introduction to Programming

Recommended prerequisites

CT30A3232 Basics of Linux

CT60A0203 Fundamentals of Programming

Learning outcomes

EN: At the end of the course the student will be able to:
1. Design and implement repositories for software engineering projects

2. Understand how the evolution of development practices led to DVCS and DevOps

3. Understand and solve issues related to versioning and deployment

4. Set up continuous deployment pipeline

5. Implement testing and other deployment processes as a part of a DevOps process

Content

EN: Distributed version control systems (DVCS). Modern repository hosting platforms, such as GitHub and GitLab. Repository best practices, management, and administration. Solving repository errors. Continuous deployment processes and executing tests. Basics of container platforms, such as Docker. Deploying basic applications from source control systems.

Additional information

EN: ***
The course is related to UN's Sustainable Development Goals (SDG):9 industry, innovation and infrastructure, 10 reduced inequalities

Study materials

EN: Tutorial videos, online readings, and other material assigned at the course.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period, 1. period-2. period, 4. period-Summer, Summer	3 cr
Course Completion		3 cr

A380A0131 Business Relationships in International Value Networks

A380A0131 Business Relationships in International Value Networks

Abbreviation: A300CE15

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Sirpa Multaharju, Responsible teacher Axel Zehendner, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: full digi

Prerequisites

EN: B.Sc. (Econ. ; Bus. Adm.) General studies

Learning outcomes

EN: The aim of the course is to familiarize students with different business relationships in international value networks, management of relationships and networks, and characteristics of supplier relationships and collaborative networks.
Upon completion the course students are able to

- understand the main concepts and theoretical backgrounds of collaboration and networks

- analyze the benefits and challenges of relationships and networks

- define supplier relationships

- participate in the development of supplier supplier relationships.

Content

EN: - The concepts and theories of collaboration and networking
- The benefits and challenges of collaboration

- Management of collaboration and networks, and supplier relationship management

Additional information

EN: Course is available for following students:

- LUT Business School students
- exchange students in business studies
- LAB business degree students
- Engineering students with a minor in business studies

The course is organized two times in an academic year: period 2 and period 4.

Moodle-based online course.

No contact teaching: so the course does not exist in TimeEdit /timetable) The teacher contacts the students every week via Moodle messages.

NB! After being accepted to the BRIVN course especially exchange students must make sure that they use LUT email and can receive Moodle messages, which is essential for completing the course.

Please be informed that if you miss the deadline for enrolling a group for the case assignment in Moodle, you cannot continue the course. The enrolling period is one week from the beginning of the course.

***

The course is related to UN's Sustainable Development Goals (SDG): 17 partnership for the goals.

Study materials

EN: Selection of journal articles and assigned readings, teaching videos and presentations.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 2. period Recurrence 2: 4. period	6 cr
¤LAB/LUT: Course Completion		6 cr
Method 2	Recurrence 1: 2. period, 4. period	6 cr
¤LAB/LUT: Course Completion		6 cr

A380A6000 Cross-Cultural Encounters

A380A6000 Cross-Cultural Encounters

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Tanja Karppinen, Responsible teacher Suvi Tiainen, Administrative person
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: Lappeenranta

Learning outcomes

EN: By the end of the course, students will know why it is important to understand and appreciate cultural differences both in business and especially private life. Students will be able to explain the basic concepts of intercultural communication by the main course themes: cultures and communication, verbal and nonverbal communication, national stereotypes, intercultural sensitivity, cross-cultural interaction, culture shock, adaptation, expatriate assignments. Students will be able to describe themselves as an intercultural communicator, recognize symptoms of culture shock in their own life and especially know how to make intercultural adaptation process easier.

Content

EN: The purpose of the course is to develop students' abilities to understand and appreciate cultural differences both in business and especially private life.
- cultures and communication
- verbal and nonverbal communication
- national stereotypes
- intercultural sensitivity
- cross-cultural interaction
- culture shock
- adaptation
- intercultural effectiveness
- expatriate assignments

Additional information

EN: Contact teaching, learning and interaction in class.

Study materials

EN: Reading material for the course provided by the lecturers.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	3 cr
Course Completion		3 cr

A380A0000 Cross-Cultural Issues in International Business

A380A0000 Cross-Cultural Issues in International Business

Abbreviation: A300CE12

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Gregory OShea, Responsible teacher Anna Sidorenko, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: Lappeenranta

Prerequisites

EN: B.Sc. (Econ. ; Bus. Adm.) General studies

Learning outcomes

EN: The goal of the course is to give an understanding of how culture affects international business and advance students' global mindset by giving conceptual tools to increase their intercultural competence. After completing the course the students will be able to:

1. understand, define and discuss culture in general and in the context international business

2. explain cultural orientations towards time, space and context.

3. analyze and compare national cultures according to dimensions defined by studies of Hofstede, Trompenaars, and the GLOBE project.

4. reflect upon the relationship between culture, organizations and management.

5. evaluate the effects of the culture on various elements of international business, including marketing, negotiations and international teams.

Content

EN: The Concept of culture; dimensions of culture in business (Hall, Hofstede, Trompenaars, and the GLOBE project). The limits of globalization from a cultural perspective. The role of culture in communication, negotiations, and management. Cross-cultural issues in international teams. Standardization and adaptation in international marketing. Country cases of cultural differences (term paper reports).

Additional information

EN: Opintojakso liittyy YK:n kestävän kehityksen tavoitteisiin (SDG): 5 sukupuolten välinen tasa-arvo, 10 eriarvoisuuden vähentäminen

Study materials

EN: 1. Browaeys ; Price: Understanding Cross-Cultural Management (3rd ed), Pearson, 2015 2. Lecture slides 3. Additional material distributed in class and via Moodle

Literature

https://lut.primo.exlibrisgroup.com/permalink/358FIN_LUT/1oevkkm/alma991875263906254
https://lut.primo.exlibrisgroup.com/permalink/358FIN_LUT/1oevkkm/alma991982971606254

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	6 cr
¤LAB/LUT: Course Completion		6 cr

A380A0500 Introduction to Corporate Social Responsibility and Sustainability

A380A0500 Introduction to Corporate Social Responsibility and Sustainability

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Pasi Heikkurinen, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: Lappeenranta

Learning outcomes

EN: This course aims to familiarize the students with the basics of corporate social responsibility (CSR) and sustainability, including common critiques of these concepts as well as their potential to achieve positive change. During the course, students will actively learn about and reflect on various sustainability issues and topics affecting businesses operating in a global environment, and possible ways for companies to address these issues through CSR and sustainability strategies, practices and interactions with stakeholders. Guest lectures and class exercises give the students an opportunity to apply their knowledge to actual business practice. Finally, students can improve their professional skills (e.g. communication and interaction skills) during the course through class discussions and group assignments.
Upon completion of the course, students should be able to:

1) Understand and critically examine key concepts and frameworks related to CSR and sustainability.

2) Recognize and assess various environmental, social, economic and ethical issues caused by, and affecting, companies operating in a global context.

3) Distinguish and analyse various types of CSR and sustainability strategies, practices and other ways of addressing sustainability issues.

4) Apply theoretical frameworks and research findings related to CSR and sustainability to real-life phenomena and business practice.

5) Produce CSR and sustainability-related texts and materials.

Content

EN: CSR and sustainability frameworks and concepts, environmental, social, economic, and ethical issues, CSR and sustainability strategy, CSR and sustainability practice, activism, reputation, corporate crises, communications, governance, digitalization, globalization, supply chain sustainability, sustainable investing, and cross-sector interactions.

Additional information

EN: Contact teaching
**

Other additional information: The course is related to all UN's Sustainable Development Goals (SDGs).

Study materials

EN: Rasche, A., Morsing, M., & Moon, J. (Eds.). (2017). Corporate Social Responsibility: Strategy, Communication, Governance. Cambridge University Press: Cambridge.
Lecture slides and materials.

Additional readings, videos and course materials announced in the syllabus and/or distributed during lectures.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	6 cr
Course Completion		6 cr
Method 2	Recurrence 1: 3. period	6 cr
Course Completion		6 cr

A380A0300 Introduction to Digital Marketing

A380A0300 Introduction to Digital Marketing

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English

Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Liisa-Maija Sainio, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: Lappeenranta

Learning outcomes

EN: After completing the course, the student should be able to:
1. Define the key concepts of digital marketing.

2. Evaluate suitable digital marketing communication tactics to attract, convert, retain and grow customers.

3. Analyze digital analytics data and make data-driven insights.

Content

EN: Web design, conversion optimization, content marketing search engine optimization, online advertising, social media marketing, web analytics.

Study materials

EN: Articles and online material informed/provided by the lecturer

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	3 cr
Course Completion		3 cr
Method 2	Recurrence 1: 4. period	3 cr
Course Completion		3 cr

A130A0551 Organizational Behaviour

A130A0551 Organizational Behaviour

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Anna-Maija Nisula, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: full digi

Learning outcomes

EN: The goal of the course is to familiarize students with the organizational behavior as a theoretical phenomenon. The course focuses on human behavior, factors affecting human behavior and consequences of human behavior in organizations.
After completing the course students should be able to:

- define the key concepts of organizational behavior and identify these concepts by definition

- understand and describe the key theoretical entities that are composed by the association of the basic concepts.

Content

EN: The course focuses on human behavior in organizations, addressing it as a phenomenon at the individual, team, and organizational levels, all of which are interconnected. At the individual level, central themes include personality, psychological capital, values, perceptions, decision-making, attitudes, motivations, and moods/emotions. At the group or team level, central themes revolve around team or group management, group dynamics, power dynamics, politics, conflicts, and negotiation strategies for team behavior. At the organizational level, central themes involve organizational structure, culture, and change management. Since groups and organizations are comprised of individuals, it's crucial to understand individual behaviors, which influence the behaviors of other individuals (groups and organizations) and vice versa. Group and organizational factors also influence individual behavior.

Additional information

EN:
This course is on-line course and emphasizes students'; self-directed learning via Moodle assignments

Study materials

EN: 1. Robbins, S.P. & Judge, T. A and Campbell. (2010). Organizational Behaviour. Edition, New Jersey; Pearson/Prentice Hall.
2. Materials announced by the lecturer.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course Completion		6 cr
Method 2	Recurrence 1: 3. period-4. period	6 cr
Course Completion		6 cr

A380A0310 Services Marketing and Customer Experience Management

A380A0310 Services Marketing and Customer Experience Management

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%

Responsible persons	Heini Vanninen, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: Lappeenranta

Prerequisites

EN: A130A0010 Markkinoinnin perusteet or equivalent basic marketing course.

Learning outcomes

EN: The aim of the course is to provide the students with the knowledge of most central issues of services marketing and customer experience management. After completion of the course the students are able to:
- Identify the key concepts and issues related to services marketing and how the nature of services affects marketing activities
- Demonstrate how services can be designed according to the needs of customers
- Plan service blueprints and understand services marketing from a holistic viewpoint, including the background work and processes that are needed to create and deliver an experience to the customer
- Analyze and audit existing services marketing processes by using the principles of service design

Content

EN: Foundations for services marketing (e.g. nature of services, services marketing mix, service design). Understanding customers and customer journey. Aligning service design and standards, service quality. Delivering and performing service, managing service promises.

Additional information

EN: Lectures in classroom.

Study materials

EN: Zeithaml, V.A., Bitner, M.J., Gremler, D.D. (2018) Services Marketing: Integrating Customer Focus Across the Firm with Connect Access.(7th ed.). New York: NY. McGraw-Hill Education.Textbook: ISBN: 978-1260051988Other readings and assignments announced before / in the class

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	3 cr
Course Completion		3 cr

A380A6060 Applied International Business

A380A6060 Applied International Business

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%

Responsible persons	Sina Mortazavibabaheidari, Responsible teacher Daniel Stabler, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Lappeenranta

Recommended prerequisites

A380A7000 International Business Essentials

Learning outcomes

EN: After taking the course the student should be able to:
· understand and apply relevant theories in the context of international business practice

· discuss how the practice of international business can influence the grand challenges our world is facing;

· understand how business scholars can influence the practice of international business;

· evaluate international business challenges that companies face and offer practical recommendations;

· retrieve and analyze international business data to facilitate managerial decision-making

Content

EN: This course covers practical challenges faced by international business enterprises including sustainability, cross-cultural and social issues, internationalization, innovation and entrepreneurship.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG):8 decent work and economic growth,11 sustainable cities and communities, 12 responsible consumption and production,17 partnership for the goals

Study materials

EN: Study materials including journal articles from magazines such as Harvard Business Review and MIT Sloan Management Review as well as practical business cases are made available on the course Moodle page.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period	6 cr
Course Completion		6 cr

A380A0400 Professional Selling

A380A0400 Professional Selling

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%

Responsible persons	Jarkko Niemi, Responsible teacher Suvi Tiainen, Administrative person
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Learning outcomes

EN: Students will learn
- to critically evaluate strategies related to international marketing and sales management

- to understand the process of personal selling in industrial marketing

- to evaluate the impact of business decisions and administrative practices

- to analyze managerial challenges in international marketing environment

- to apply relevant business skills

Content

EN: This course introduces you to modern sales management in the international business environment. It addresses the current challenges and important questions in modern sales management, including the recruitment of sales force, the professional selling process, and sales ethics. During the course, you will join a team and manage a sales organization in a computer-based simulation game, competing against other teams. There will also be role-plays in which we learn about salesperson-customer interactions.

Additional information

EN: The course is related to UN's Sustainable Development Goals (SDG): 3 good health and well-being, 8 decent work and economic growth, 9 industry, innovation and infrastucture

Study materials

EN: Assigned readings, lectures, and sales management simulation game.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course completion		6 cr

A130A0620 Basics in MS Excel for Business Students

A130A0620 Basics in MS Excel for Business Students

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Sanna Heinänen, Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: Location: full digi

Prerequisites

EN: No preliminary studies required. Basic knowledge of MS Excel recommended.

Learning outcomes

EN: By the end of the course, students are able to use and develop basic functions for data analysis relating to business studies and needs.

Content

EN: The course is based on independent study and can be carried out any time during the academic year. During the course, students are learning the basics of MS Excel for business studies. The course includes self-learning videos and documents as well as web-based exercises. The topics include formatting, drawing graphs, basic mathematic formulas, lookup formulas and working with pivot tables and dashboard. The course does not require preliminary studies. The basic knowledge of MS Excel recommended.

Study materials

EN: Course materials

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-Summer	3 cr
Course Completion		3 cr
Method 2	Recurrence 1: 1. period-Summer	3 cr
Course Completion		3 cr

A130A0680 Statistics for Economics

A130A0680 Statistics for Economics

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	6 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LBS, Business Administration 100%
Responsible persons	Iryna Maliatsina, Responsible teacher Suvi Tiainen, Administrative person
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Learning outcomes

EN: After the course, the students will have a general understanding of statistics and fundamentals of statistical inference, will be able to apply the basic statistical tests to analyse quantitative data, and will be able to use statistical software when describing data and applying the basic statistical analysis methods.

Content

EN: The basic concepts and issues in statistical inference. Sampling. Graphical and numerical description of data. Use of probability distributions. Parameter estimation and statistical testing. The basic tests to analyze quantitative data, and properly selecting the appropriate tests. Use of statistical software package.

Additional information

EN: Course is only available for students who are studying in Bachelor's Programme in Sustainable International Business.

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The course is related to UN's Sustainable Development Goals (SDG): 4 quality education

Study materials

EN: 1) Lecture and exercise materials
2) e-book: Ross, S. M. Introductory statistics. Academic Press, 2017

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	6 cr
Course completion		6 cr

VA10A1000 Basics of Management and Organisations

VA10A1000 Johtamisen ja organisaatioiden perusteet

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English, Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	Education other than LUT University 100%
Coordinating organisation	University of Eastern Finland 100%
Responsible persons	Suvi Tiainen, Administrative person
	⚠ [information missing], Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: LITO course

Learning outcomes

EN: Upon successful completion of the course, the student will be able to:
· name the key concepts and theories in the areas of organisation, management and leadership

· name the key concepts and evaluate the functions of human resource management

· understand the major tools of strategic management

· understand business in the network of global interactions

· apply theory in practical leadership and management situations.

Content

EN:

- Management and leadership

- The development of leadership thinking and leadership theory
- The key concepts of management leading culture, innovation and change

- Organisations and organisational behaviour
- Organisational structure
- Organisational culture
- Organisational life
- Human resource management
- Human resource management
- Leading individuals, teams and groups
- Motivation and coaching
- Strategic thinking and strategic tools
- The development of strategic thinking and strategy
- Strategic tools
- Strategic management in a global environment

Additional information

EN: Note
Only for technology students. The latest information about the course is updated and published on the course platform at www.lito.fi.

Please note that the completion of the course takes place on the DigiCampus learning platform. Login instructions to the platform will be provided to the students who have registered for the course via email.

The LITO courses are organised in co-operation with multiple universities. To enable registering credits when the course is completed, it is necessary to transfer data about the student from their home university to the university that is responsible for organizing the course. The data to be transferred consists of: name, gender, nationality, e-mail address, personal identification number and the home university. Data that is classified as secret is not transferred. Without data transfer it is not possible to have the course credits registered.

The course will run from 7 February 2024 to 11 April 2024 (Weeks 6–15) + exam resits.

Study materials

EN: Robbins, Stephen P. – Judge, Timothy A. – Campbell, Timothy T. (2017) Organizational Behavior.
The course instructors may ask students to read additional literature (e.g. articles). Details of additional readings are given at the beginning of the course.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	5 cr
Course Completion		5 cr

VA10A1100 Basics of Marketing and Sales

VA10A1100 Markkinoinnin ja myynnin perusteet

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English, Finnish
Grading scale	General scale, 0-5

University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	Education other than LUT University 100%
Coordinating organisation	University of Vaasa 100%
Responsible persons	Suvi Tiainen, Administrative person
	⚠ [information missing], Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: LITO course

Prerequisites

EN: The course includes a compulsory preliminary assignment that has to be completed successfully by a pre-defined date.

Learning outcomes

EN: Upon completion of the course, students will be able to:
· describe the role of marketing in an organisation and identify the significance of customer orientation in both the development of the organisation and personal actions

· apply the key concepts of marketing (e.g. customer-perceived value, the value creation process, the brand, the marketing mix and segmentation) in decision-making and evaluate decisions

· describe the diverse emphases of business-to-business marketing and consumer marketing, and the key characteristics of both logics

· identify and utilise key marketing communication channels in the fickle business environment

· understand sales processes in their entirety, the different parts of them in both consumer and business-to-business sales.

In addition to core marketing skills, the course develops working life skills, such as

· problem-solving and project management skills

· critical thinking / information assessment skills

· the analysis and application of information

· the utilisation digital platforms

· written and oral expression.

Content

EN: · Key marketing concepts, definitions and phenomena now and before
· Understanding these concepts in diverse contexts: The differences between consumer logic and business-to-business logic

· Customer-centred thinking and value creation

· Customer-oriented strategy in a changing business environment

· Key concepts and phenomena in consumer marketing

· Business-to-business marketing and organisational buying behaviour

· Marketing communication channels and content

· Sales processes in consumer and business-to-business contexts, as well as personal sales and interaction skills at different phases of sales processes

Additional information

EN: Only for students of technology. The latest information about the course is updated and published on the course platform at www.lito.fi.
Please note that the completion of the course takes place on the DigiCampus learning platform. Login instructions to the platform will be provided via email to the students who have registered for the course.

The course will run from early March to early May 2025 (Weeks 10–18). There will be a pre-assignment in Week 9.

The LITO courses are organised in co-operation with multiple universities. To enable registering credits when the course is completed, it is necessary to transfer data about the student from their home university to the university that is responsible for organizing the course. The data to be transferred consists of: name, gender, nationality, e-mail address, personal identification number and the home university. Data that is classified as secret is not transferred. Without data transfer it is not possible to have the course credits registered.

Study materials

EN: The teachers will specify the literature at the beginning of the course.
The course material, literature and assignments are in English. However, students may submit their assignments either in Finnish or English.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	5 cr
Course Completion		5 cr

VA10A1400 Economics and the Business Environment

VA10A1400 Liiketoimintaympäristön taloustiede

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English, Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	Education other than LUT University 100%
Coordinating organisation	Tampere University 100%
Responsible persons	Suvi Tiainen, Administrative person
	⚠ [information missing], Responsible teacher
	⚠ [information missing], Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: LITO-course

Prerequisites

EN: Preliminary assignment.

Learning outcomes

EN: Upon successful completion of the course, students will be able to:
· define basic economic concepts

· understand economic thinking and apply economic theory in the analysis of a business environment and market economies.

The course also develops problem-solving and analysing skills, and critical thinking, as well as developing the skills required to apply theoretical knowledge.

Content

EN: The course provides students with basic skills in analysing the business environment and provides an overview of its evolution from an economic perspective. Proactive identification of both opportunities in the business environment and threats to the business environment is increasingly important for successful businesses in the global economy.
During the course, the students will familiarise themselves with:

- the decision-making processes in companies and among consumers, and how the markets function (microeconomics)
- economic growth, business cycles, labour markets, inflation, monetary policy and economic policy (macroeconomics)
- the role of the public sector and the focal public policy instruments in market economies (public economics)
- international trade, financial markets, European integration and multinational companies (international economy).

Additional information

EN: Only for students of technology. The latest information about the course is updated and published on the course platform at www.lito.fi.
Late enrolments are not accepted.

Please note that the completion of the course takes place on the DigiCampus learning platform. Login instructions to the platform will be provided to the students who have registered for the course via email.

The course site opens in Week 9. The online course runs from 24 February to 6 April 2025 (Weeks 9–14). The exam can be taken between 14 April and 20 April 2025 (Week 16). Exam resits will be in Weeks 18 and 21.

Study materials

EN: The electronic coursebook is openly accessible in both English and in Finnish online:
The CORE Team: The Economy. Available at: http://www.core-econ.org.
CORE-työryhmä: Talous. Available at: https://www.core-econ.org/the-economy/fi/
The instructors may assign additional literature during the course.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 4. period	5 cr
Course Completion		5 cr

VA10A1600 Introduction to Corporate Social Responsibility

VA10A1600 Introduction to Corporate Social Responsibility

Curriculum period	2024-2025
Validity period	since 1 Aug 2024

Credits	5 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	Education other than LUT University 100%
Coordinating organisation	Hanken School of Economics 100%
Responsible persons	⚠ [information missing], Responsible teacher Suvi Tiainen, Administrative person
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: LITO course

Learning outcomes

EN: Upon completion of the course, the students will be able to:
· define and apply key concepts and perspectives regarding CSR

· identify relevant issues and analyse the challenges related to corporate responsibility in selected industries

· describe the role of CSR in business and in relation to wider international political and economic issues

· describe the different aspects through which organizational practices can be CSR-oriented

· apply key concepts of CSR in their daily work.

In addition, the students will be able to analyse CSR literature, organise their work independently and work in a virtual environment.

Content

EN: · Central concepts in CSR
o CSR and sustainable development

o Definitions of CSR

o Why CSR matters – the business case

o Stakeholder salience

· Working with stakeholders

o Political CSR

o Cross-sector partnerships and CSR

o Multi-stakeholder initiatives and CSR

o CSR and human rights

· CSR in company operations

o Human resource management (HRM) and CSR

o CSR and supply chain

o CSR and sustainable consumption

o CSR – minimum wage and living wage

· Examples of CSR

o CSR and communication

o CSR and corruption

o CSR and leadership

o CSR and responsible investment

CSR and social entrepreneurship

Additional information

EN: Only for students of technology. The latest information about the course is updated and published on the course platform at www.lito.fi.
Please note that late enrollments are not accepted.

Preliminary schedule:

20.1. – 15.3.2025 (viikot 4–11)

Please note that the completion of the course takes place on the DigiCampus learning platform. Login instructions to the platform will be provided to the students who have registered for the course via email.

The LITO courses are organized in co-operation with multiple universities. To enable registering credits when the course is completed, it is necessary to transfer data about the student from their home university to the university that is responsible for organizing the course. The data to be transferred consists of: name, gender, nationality, e-mail address, personal identification number and the home university. Data that is classified as secret is not transferred. Without data transfer it is not possible to have the course credits registered.

Study materials

EN: The link to primary reading materials will be provided on the learning platform.

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 3. period-4. period	5 cr
Course Completion		5 cr

VA10A1700 Understanding and Managing a Business as a Dynamic Whole - Business Simulation Game

VA10A1700 Liiketoimintaosaamisen kokonaisdynamiikka ja sen ohjaaminen - yrityssimulaatio

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English, Finnish
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	Education other than LUT University 100%
Coordinating organisation	University of Turku 100%
Responsible persons	Suvi Tiainen, Administrative person
	⚠ [information missing], Responsible teacher
Study level	Intermediate studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law

Tweet text

EN: LITO course

Prerequisites

EN: The course serves as a capstone, bridging together the other modules in the LITO entity. The course provides an overall picture of business dynamics and explains how the different fields of business studies are related to it. Various tools and services outside the LITO learning platform may be used in the analyses during the course.
It is recommended that before taking this course, the student has taken at least the following LITO courses: 'Introduction to Accounting and Financial Management' and 'Basics of Management and Organisations'. Alternatively, the student must possess sufficient previous knowledge in these fields in order to be able to analyse a business as a whole.

Recommended prerequisites

VA10A1000 Basics of Management and Organisations

VA10A1200 Introduction to Accounting and Financial Management

Learning outcomes

EN: After completing the course, students will be able to:
· describe how different areas in business studies are connected in the entity of enterprise functions and in making a profit

· apply various methods of collaboration in a virtual team and to become aware of the key regularities in the collaborative business environment

· apply different business analysis tools in planning and managing a business and understand the essential role of strategy in the process.

A central part of the course is the optimisation of a business as a whole with respect to both various business functions and goals; students will understand why it is not practical to optimise single functions separately and why the management needs to have a holistic perspective of the company that simultaneously takes into account social, ecological and financial responsibility.

Content

EN: · The foundation for this course is a decentralised and collaborative business simulation exercise in which students work in teams and collaborate with other teams. Besides engaging in real-time decision-making during the simulation days, the students will complete assignments that relate to various business sciences and analyse the actions taken in the simulation outside the simulation days.
· Participation takes place in small virtual groups, the members of which come from different universities.

· The thematic core for the simulation is the entity formed by the different functions of a company and the responsible agency of the company in a network of enterprises. The relevant themes include several areas of cross-company functions (purchasing, project management, distribution and customer relationships) and the reporting related to these topics. The course emphasises the entity of business operations from the perspective of responsible management.

· During the course, students are introduced to the dynamics of business networks where the students' company is part of a network of competitors, suppliers and customers.

· The theoretical material and the exercises distributed on the course are related to the thematic core for the simulation and for other LITO learning themes.

Additional information

EN: The first course period runs from late September to late November 2024 (Weeks 39–47). There is a pre-assignment in Week 39.
The second course period runs from late January to late March 2025 (Weeks 4–12). There is a pre-assignment in Week 4.

The third course period runs from mid-March to mid-May 2025 (Weeks 11–19). There is a pre-assignment in Week 11.

Please note that the completion of the course takes place on the DigiCampus learning platform. Login instructions to the platform will be provided via email.

The LITO courses are organised in co-operation with multiple universities. To enable registering credits when the course is completed, it is necessary to transfer data about the student from their home university to the university that is responsible for organizing the course. The data to be transferred consists of: name, gender, nationality, e-mail address, personal identification number and the home university. Data that is classified as secret is not transferred. Without data transfer it is not possible to have the course credits registered.

Study materials

EN: The literature includes: simulation game instructions, a description of the simulation environment, learning videos, a course hand-out and a selection of other articles (to be announced).

Completion method and assessment items	Recurrence	Credits
Method 1	Recurrence 1: 1. period-2. period Recurrence 2: 4. period, 3. period Recurrence 3: 4. period	5 cr
Course Completion		5 cr

K200CE69 Finnish 1

K200CE69 Finnish 1

Abbreviation: K200CE69

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Elina Niskanen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The student is able to - identify and use the course vocabulary and phrases for common everyday situations - tell about oneself and understand basic questions - read and write simple sentences related to the course topics.

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

K200CE70 Finnish 2

K200CE70 Finnish 2

Abbreviation: K200CE70

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Elina Niskanen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The student is able to - communicate in most common everyday situations - understand slowly and clearly spoken Finnish when the topic and the vocabulary are familiar - understand and write a simple message or text - use the basic vocabulary and some grammatical structures of Finnish.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

K200CH62 Finnish 3

K200CH62 Finnish 3

Abbreviation: K200CH62

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tarja Saarnisto, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

K200CH63 Finnish 4

K200CH63 Finnish 4

Abbreviation: K200CH63

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tarja Saarnisto, Responsible teacher
Study level	Basic studies

Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

K200CG35 Finnish for Work 2

K200CG35 Finnish for Work 2

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	English, Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Pirjo Rantonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		5 cr
¤LAB/LUT: Course Completion		5 cr

KM00CO04 Finnish Culture and Society

KM00CO04 Finnish Culture and Society

Abbreviation: KM00CO04

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Jaana Häkli, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The student is able to - work and live in Finland or with the Finns without major cultural conflicts. - use the basic information on Finnish history, society, design, welfare state, identity and nature etc. to understand values, customs and habits in Finland. - get deeper cultural experiences in Finland through functional and experiential activities and visits related to Finnish culture.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

K200CU41 Suomi with Love 1

K200CU41 Suomi with Love 1

Abbreviation: K200CU41

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT

Responsible organisation	LAB, language 100%
Responsible person	Sanna Paunonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The student is able to - identify and use the course vocabulary and phrases for common everyday situations - tell about oneself and understand basic questions - read and write simple sentences related to the course topics. Proficiency level: A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

K200CS72 Independent study in Finnish

K200CS72 Independent study in Finnish

Abbreviation: K200CS72

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	2 cr
Languages	English, Finnish
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sanna Paunonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level B1 The students will be able to - read a text in his/her field in order to understand its main idea - use the most important Finnish concepts in his/her field both in speech and in simple texts - knows enough vocabulary in his/her field to be able to follow a lesson or lecture in Finnish and understand its main points - make use of tools to explain new concepts - can plan language learning independently and assess his/her own progress.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		2 cr
¤LAB/LUT: Course Completion		2 cr

K200CQ88 Finnish Conversation 2

K200CQ88 Finnish Conversation 2

Abbreviation: K200CQ88

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tarja Saarnisto, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The student is able to - tell about themselves, their interests, and express opinions on various topics - act in more versatile authentic spoken situations in Finnish - follow conversations, start them, and take part in maintaining them - understand and use various vocabulary and grammatical structures in speech. Proficiency level A2

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		5 cr
¤LAB/LUT: Course Completion		5 cr

K200CP87 Finnish Conversation 1

K200CP87 Finnish Conversation 1

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tarja Saarnisto, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KE00BZ84 English for Professional Development (Business)

KE00BZ84 English for Professional Development (Business)

Abbreviation: KE00BZ84

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tessa Laba, Responsible teacher
Study level	Basic studies

Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: B2 Students are able to communicate clearly and effectively in different generic and field-specific work place situations both orally and in writing; find, evaluate and use information effectively and function collaboratively in international working environments.

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		4 cr
¤LAB/LUT: Course Completion		4 cr

KE00BZ85 English for Professional Development (Technology)

KE00BZ85 English for Professional Development (Technology)

Abbreviation: KE00BZ85

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible persons	Hwei-Ming Boey, Responsible teacher Olesya Kullberg, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: B2 Students are able to communicate clearly and effectively in different generic and field-specific work place situations both orally and in writing; find, evaluate and use information effectively and function collaboratively in international working environments

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		4 cr
¤LAB/LUT: Course Completion		4 cr

KE00BZ83 English for Professional Development (ESTIEM)

KE00BZ83 English for Professional Development (ESTIEM)

Abbreviation: KE00BZ83

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Ritva Kosonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: B2 Students are able to communicate clearly and effectively in different generic and field-specific work place situations both orally and in writing; find, evaluate and use information effectively and function collaboratively in international working environments.

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		4 cr
¤LAB/LUT: Course Completion		4 cr

KE00CG81 Business Writing

KE00CG81 Business Writing

Abbreviation: KE00CG81

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Anneli Rinnevalli, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: B2 The student is able to: - interpret business transaction documents - use field-specific business terminology and style of writing - prepare clear and accurate business messages in correct English - prepare explicit and effective texts for use within and outside the organization, and to meet the communicative needs.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KE00BZ81 Academic Writing

KE00BZ81 Academic Writing

Abbreviation: KE00BZ81

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Anneli Rinnevalli, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: B2-C1 Students are able ·to identify the characteristics of academic writing ·to demonstrate their proficiency in applying academic writing conventions, both generic and discipline-specific, to their writing ·to demonstrate their ability to critical thinking and analysis ·to demonstrate ability in collaborative situations ·to produce a 6-page academic paper in pairs or in groups of three

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KE00CG33 Writing for Digital Media

KE00CG33 Writing for Digital Media

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%

Responsible person	Hamid Guedra, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		4 cr
¤LAB/LUT: Course Completion		4 cr

KE00CQ38 Introduction to Copywriting

KE00CQ38 Introduction to Copywriting

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	2 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Vesa Koskela, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Completion method and assessment items	Recurrence	Credits
Method 1		2 cr
¤LAB/LUT: Course Completion		2 cr

KE00CG79 Professional Reading

KE00CG79 Professional Reading

Abbreviation: KE00CG79

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tessa Laba, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: B2 Students are able to - comprehend, analyze and summarize authentic professional texts in English - learn and master strategies for expanding professional vocabulary - use strategies for effective reading.

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KE00CG82 Online Presentations

KE00CG82 Online Presentations

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT

Responsible organisation	LAB, language 100%
Responsible person	Riitta Gröhn, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KE00BX35 English Pronunciation

KE00BX35 English Pronunciation

Abbreviation: KE00BX35

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	1 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Samu Lattu, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Students understand various English dialects and know about their special features. Students are able to pronounce English clearly

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		1 cr
¤LAB/LUT: Course Completion		1 cr

KE00CC64 English Prep Course

KE00CC64 English Prep Course

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Anneli Rinnevalli, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Additional information

EN: Note. The course is not accepted in LUT university's degrees' compulsory language studies. It can however be included in free elective studies.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KD00CH39 German 1

KD00CH39 Saksa 1

Abbreviation: KD00CH39

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	German

Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Pirjo Rantonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The students will - understand slow and clear speech related to course topics - are able to communicate orally and in writing in simple everyday situations, such as introductions, telling about oneself and reacting e.g. in dining situations - are able to use the most frequent basic structures CEFR level A1

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KD00CH40 German 2

KD00CH40 Saksa 2

Abbreviation: KD00CH40

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	German
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Pirjo Rantonen, Responsible teacher
Study level	Basic studies

Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The students will - understand slow and clear speech related to course topics - are able to communicate orally and in writing in simple everyday situations, such as telling about the family, free time and health - are able to use the most frequent basic structures. CEFR level A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KD00CH41 German 3

KD00CH41 Saksa 3

Abbreviation: KD00CH41

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	German
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Pirjo Rantonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The students will - understand clear speech related to course topics - are able to communicate orally and in writing in simple everyday situations, such as telling about the home, work and past events - are able to use the most frequent basic structures CEFR level A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KD00CH43 German for Work 2

KD00CH43 Työelämän saksaa 2

Abbreviation: KD00CH43

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	German
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Tiina Pernanen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KD00CT54 German for Work 3

KD00CT54 Työelämän saksaa 3

Abbreviation: KD00CT54

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	German
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Pirjo Rantonen, Responsible teacher
Study level	Other studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The student is able to communicate in oral interaction situations at the workplace related to e.g. company visits. The student is able to compose work-related emails. The student knows the key features of German working life.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KF00CH30 French 1

KF00CH30 Ranska 1

Abbreviation: KF00CH30

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	French
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%

Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After completing the course, the student - is able to use the basic structures and vocabulary necessary for work and study life introductory situations - can present oneself and tell about oneself orally and in writing. - knows the basic rules of pronunciation - knows the basic differences between formal and informal communication - is able to ask questions and express preferences. - knows the basic structures: verbs' present tense, articles, prepositions of place, prepositions à ja de, personal pronouns, structure expressing ownership, prohibition, questions, numbers 0-69. Proficiency level: A1

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KF00CH31 French 2

KF00CH31 Ranska 2

Abbreviation: KF00CH31

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	French
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies

Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After completing the course, the student - is able to use the basic structures and vocabulary necessary in work and study life situations, and to tell about his/her use of time and daily routines. - Communicate in travel situations, - tell about working / study day routines - tell time, announce plans - communicate by phone and email. - knows the basic structures: articles, question words, demonstrative adjectives and pronouns, prepositions à, de, en, present tense, reflexive verbs, near future, numbers 70-1000. Proficiency level: A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KF00CH32 French 3

KF00CH32 Ranska 3

Abbreviation: KF00CH32

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	French
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After completing the course, the student - is able to use the basic structures and vocabulary needed in work and study life situations - can tell about eating habits and order in a restaurant - is able to tell about past events, describe the appearance of people and things and compare things, - knows the difference between the formal and informal communication - knows the structures: articles, adjectives, comparison of adjectives, prepositions, personal pronouns, present, passé composé, partitive, quantitative expressions, numerals 1000 -, ordinal numbers Proficiency level: A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KF00CG43 French for Work 1

KF00CG43 Työelämän ranskaa 1

Abbreviation: KF00CG43

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	French
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After the course the student - is able to use the structures and the vocabulary needed in working interaction situations - tell about the jobs and about the working environment - is able to present the basic activities of an enterprise and describe the activities of an organization - can write formal messages - can write a CV - knows how to tell about the future and past events - knows the structures: the pronouns, the present, the imperfect tense and the future form. Proficiency level: A2

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KF00CG44 French for Work 2

KF00CG44 Työelämän ranskaa 2

Abbreviation: KF00CG44

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	French
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After completing the course, the student - is able to use the structures and vocabulary necessary in the most important communication situations of working life, mainly written. - is able to present optionally e.g. company / organization and products, give an elevator speech, tell about entrepreneurship, write a memo. - is able to use subjunctive and conditional Proficiency level: A2

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KF00CL06 Le monde francophone

KF00CL06 Le monde francophone

Abbreviation: KF00CL06

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	French
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Ritva Kosonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After the course, the student - knows the countries the belong to the Francofonia or the French-speaking world and has familiarized with some of them - can tell about the tourism, the economics and the culture of different French speaking countries - knows the forms and the use of the subjunctive mood - can tell about the past events by using the imperfect and the perfect tenses.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		5 cr
¤LAB/LUT: Course Completion		5 cr

KP00CK94 Spanish 1

KP00CK94 Espanja 1

Abbreviation: KP00CK94

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Spanish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT

Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After the course the student is able to - use the structures and the vocabulary needed while presenting oneself in working and studying situations - can present himself and tell about himself in spoken and written way - knows the basic rules of pronunciation - knows the basic differences of the formal and the informal communication - is able to ask questions and tell opinions. - knows the basic structures: the Present Tense, the articles, the prepositions, the personal pronouns, the structures that indicates the possession, the negation, the interrogative sentence, the numbers 0-100 Proficiency level: A1

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KP00CH26 Spanish 2

KP00CH26 Espanja 2

Abbreviation: KP00CH26

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Spanish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies

Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After the course the student - is able to use the structures and the vocabulary needed in working, studying and leisure everyday situations - tell about his/her daily routines (about the family, describing persons, the hobbies, going to the restaurant and shopping, writing an e-mail message) - knows the basic structures: articles, questions words, demonstrative adjectives and pronouns, prepositions, the Present Tense, The Perfect Tense, The near Future, the numbers 100-1000 Proficiency level: A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KP00CH27 Spanish 3

KP00CH27 Espanja 3

Abbreviation: KP00CH27

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Spanish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After the course the student - is able to use tell about the living, to describe the appearance of persons and things, to compare things - can tell about the past events - knows the structures: adjectives, the comparison, the direct and indirect object pronouns, the reflexive verbs, the gerund, the numbers 1000 -, the ordinary numbers Proficiency level: A1

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KP00CP90 Spanish 6

KP00CP90 Espanja 6

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Spanish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KP00BX61 Spanish for Working Life 1

KP00BX61 Työelämän espanjaa 1

Abbreviation: KP00BX61

Curriculum period	2024-2025
Validity period	since 1 Aug 2024

Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Jonna Holkeri, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After the course the student - is able to use the structures and the vocabulary needed in working interaction situations - tell about the jobs and about the working environment and present the basic activities of an enterprise - can write formal messages - can write a CV - knows how to tell about the future and past events - knows the structures: the pronouns, the present tense, the imperfect tenses, the future, the polite requests (the imperative) Proficiency level: A2

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KP00BX62 Spanish for Working Life 2

KP00BX62 Työelämän espanjaa 2

Abbreviation: KP00BX62

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Finnish
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Sari Pärssinen, Responsible teacher
Study level	Basic studies

Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: After compliting the course, student - is able to communicate mainly written in Spanish in basic business situations and understand the business culture of the Spanish speaking countries. - is able to tell according to choise about, business culture, business communication, meetings, banking, applying for a job in the Spanish speaking world. - is able to use conditional, subjunctive and future. Proficiency level: A2

Additional information

EN:

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KC00CQ67 Basic Chinese 2

KC00CQ67 Basic Chinese 2

Abbreviation: KC00CQ67

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	5 cr
Languages	Chinese
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Ritva Kosonen, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: The students will be able to: · Achieve a Chinese proficiency of New HSK Level 4; · Use Chinese to fulfill the basic communication activities and tasks encountered in their life, study, work and travel; · Acquire preliminary listening, speaking, reading and writing skills; · Handle most of the communication tasks when they travel to China; · Analyze and evaluate cultural representations in historical and disciplinary contexts, with the understanding that standards of evaluation are themselves historically produced and contingent. · Reach an upper basic level in Chinese proficiency, which is approximately equivalent to Level B2 in the Common European Framework of Reference for Languages.

Additional information

EN: Lectured first time in academic year 2022-2023

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		5 cr
¤LAB/LUT: Course Completion		5 cr

KC00CQ69 Intermediate Chinese 2

KC00CQ69 Intermediate Chinese 2

Abbreviation: KC00CQ69

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Chinese
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible persons	Ritva Kosonen, Responsible teacher
	⚠ [information missing], Responsible teacher
	⚠ [information missing], Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Upon completion of the course, students will be able to: • Pass the New HSK Level 4 test and prepare for level 5 • Further improve their listening, reading, speaking and writing skills; • Understand basic language materials that they encounter in their daily life, work and other common social occasions; • Communicate and exchange ideas with others on familiar topics and to describe briefly basic situations relevant to these topics; • Analyze and evaluate cultural representations in historical and disciplinary context, with the understanding that standards of evaluation are themselves historically produced and contingent. • Reach an intermediate level in Chinese proficiency, which is approximately equivalent to Level B2 in the Common European Framework of Reference for Languages.

Additional information

EN: Lectured first time in academic year 2023-2024

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KC00DB86 Chinese 1

KC00DB86 Chinese 1

Abbreviation: KC00DB86

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	2 cr
Languages	Chinese
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Hwei-Ming Boey, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Social sciences

Completion method and assessment items	Recurrence	Credits
Method 1		2 cr
¤LAB/LUT: Course Completion		2 cr

KC00DB87 Chinese 2

KC00DB87 Chinese 2

Abbreviation: KC00DB87

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	Chinese
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Hwei-Ming Boey, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Social sciences

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr

KC00DB88 Chinese 3

KC00DB88 Chinese 3

Abbreviation: KC00DB88

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	4 cr
Languages	Chinese
Grading scale	General scale, 0-5
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Hwei-Ming Boey, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Social sciences

Completion method and assessment items	Recurrence	Credits
Method 1		4 cr
¤LAB/LUT: Course Completion		4 cr

KM00BX75 Each one teach one

KM00BX75 Each one teach one

Abbreviation: KM00BX75

Curriculum period	2024-2025
Validity period	since 1 Aug 2024
Credits	3 cr
Languages	English
Grading scale	Pass-Fail
University	Lappeenranta-Lahti University of Technology LUT
Responsible organisation	LAB, language 100%
Responsible person	Aria Kanerva, Responsible teacher
Study level	Basic studies
Study field	Fields of education (Ministry of Education and Culture), Business, administration and law Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs) Fields of education (Ministry of Education and Culture), Engineering, manufacturing and construction Fields of education (Ministry of Education and Culture), Social sciences

Prerequisites

EN: Details available in Completion methods under the header Teaching

Learning outcomes

EN: Proficiency level: any between A1-C2 Students learn a language of their choice together with a native speaker.

Study materials

EN: Details available in Completion methods under the header Teaching

Completion method and assessment items	Recurrence	Credits
Method 1		3 cr
¤LAB/LUT: Course Completion		3 cr