

LAUREA UNIVERSITY OF APPLIED SCIENCES

Common and elective studies, Laurea Kerava, LYE10SY

Learning concept at Laurea

Universities of applied sciences have three tasks set by law: research and development, regional development, and pedagogy. The effective integration of these three tasks has been seen as one of the keys to the successful completion of Laurea's statutory duties. The aim for Laurea is to produce competent graduates who become research-oriented developers of their work and their fields. A further aim is to develop and renew labour market competence through research and to produce innovations that make use of multidisciplinary competence to have an impact on our surroundings.

Laurea's learning concept is embodied in the Learning by Developing model, which has been rewarded by the Finnish Higher Education Evaluation Council. The objective of learning is competence, which is visible as new ways and means of working, and which allows for renewal of the labour market and the field. Learning by Developing takes place in workplace-oriented projects in which students, lecturers, workplace experts and customers work together to develop innovative solutions.

Students are seen as partners who, as their competence develops, are able to take on increasing responsibility and make use of their creativity to complete research and development tasks. Students acquire competence in learning environments comprising diverse workshops and labs. Professional competence is constructed out of the integrated combination of empirical data, a deep understanding of it, and skills in doing and handling situations. Working together to build knowledge-based skills leads to competence that allows students to manage diverse situations in the constantly changing world of work.

Learning at Laurea progresses through an orientation of skills. Scientific data is significant as a tool. Learning directs students to process knowledge and to select ethically significant knowledge that can be utilised and applied in development projects that correspond to their degrees. Laurea places importance on ensuring that students grow into skilled experts who can renew the labour market. Workplace-oriented development projects as learning environments allow for genuine learning, the construction of partnership networks, the application of meaningful experiences and the development of creativity and research orientation. In the work-oriented development projects, individuals and the target community develop their competence together. In addition, they generate new knowledge for developing and reforming the labour market.

Learning environments

The aim of the learning environment is to facilitate the achievement of learning outcomes while supporting the generation and development of new competence. Laurea's learning environments utilise internal and external networks and are in constant interaction with the workplace. Regional influence increases through communities and the networks that they form. Students use projects to learn the basics of networking, social skills and communication with experts in the field. Students grow into developers by carrying out development tasks and by interacting in competence networks.

Practical applications of learning environments include initiatives and projects that form innovation environments for the community, as well as various operating spaces designed for learning and development, competence hubs and development labs.

The student's role and responsibility in learning

In Laurea's work-oriented research and development projects, the concept of partnership implies cooperation between teachers, experts from the labour market and students. The cooperation is based on responsible commitment to the development project. Studying at Laurea requires critical thinking, problem-solving skills, self-directiveness, a proactive attitude and cooperation skills from students. The studies place a focus on an independent attitude. In development projects, all participants are seen as learners, because the projects aim to produce change and generate something new. Partnership also means mutual respect and appreciation for diverse skills. The progress of the development project requires sharing competence and building new competence out of different areas of expertise. Students participate as partners who build their competence by obtaining new tools and by taking part in various research and development initiatives.

The teacher's role at Laurea

The teacher's role in development projects can be described as that of an expert, a participant and a pedagogical leader. The teacher cannot transfer competence to students but guides the student's learning process. Depending on their roles, Laurea's teachers are both researchers and developers, influencers in regional development, and pedagogues. Teachers who work as researchers publish reports that demonstrate the effectiveness of development projects as reformers and developers of competence in the labour market. As a developer, a teacher is responsible for ensuring the progress of a development project.

Structure of the curriculum

Laurea's curricula are based on themes and study units. A theme refers to a wider competence area that typically requires that a student master several study units within the subject area. The contents of the themes and study units cover the core vocational competence in the field. Annual themes form an umbrella for studies from the perspective of increased professional growth. The curriculum contains the nationally defined generic competences (see Table 1) as part of the objectives set for the themes or study units. Mastering the generic competences ensures vocational education that meets the requirements set for the level to be obtained at universities of applied sciences, and mastering the themes builds competence needed in working life.

Table 1. National generic Competences (Arene 2010)

Generic competences	Description of the competence, bachelor level
LEARNING COMPETENCE	• is able to self-evaluate and develop one's competence and learning style orientation • is able to retrieve and analyze information and evaluate it critically • is capable of taking responsibility for collaborative learning and sharing knowledge in teams
ETHICAL COMPETENCE	• is able to take responsibility for one's own actions and for the consequences of these actions • is able to work according to the ethical principles of the subject field • is able to take other people into account in one's actions • is able to apply the principles of equality • is able to apply the principles of sustainable development • is capable of social influencing using one's know-how and based on ethical values
WORKING COMMUNITY COMPETENCE	• is able to operate as a member of a work community • is able to operate in communicative and interactive situations in working life • is able to utilize information and communications technology in one's subject field • knows the working life in one's subject field and is able to create personal contacts in working life and to operate in professional networks • is capable of decision making in unpredicted situations • is able to apply the principles of organizational management and leadership in working life and has abilities for supervision tasks • possesses entrepreneurial skills
INNOVATION COMPETENCE	

	• is able to conduct research, development and innovation projects applying the existing knowledge and methods of the field • is able to work in projects • is capable of creative problem solving and development of working methods • is able to find customer-oriented, sustainable and profitable solutions
INTERNATIONALIZATION COMPETENCE	• possesses communicative competence necessary for one's work and for professional development in the subject field • is able to operate in a multicultural environment • takes into account the effects of and opportunities for internationalization development in one's own field

Competence evaluation

Competence evaluation is based on the objectives described in the curriculum. These objectives define the requirements that students have to meet to achieve their degree titles. Competence evaluation shows how well the set objectives have been met. On the one hand, competence is seen as knowledge, skills and values, and on the other hand, as experience. Evaluation through development projects looks at an individual's and the project community's learning, the progress and significance of different processes, and the results achieved. Study units are evaluated on a numerical scale of 0 to 5 or on a pass/fail (H/O) basis. The evaluations apply criteria developed for evaluating the competence of students at the beginning of their studies and at graduation (see Table 2). The evaluation criteria for each study unit are given in the study unit's syllabus.

Table 2. Evaluation criteria for initial stage and graduation stage students

BACHELOR'S DEGREE	INITIAL STAGE STUDENTS	GRADUATION STAGE STUDENTS
EXCELLENT grade 5 Students are able to:	• Apply professional concepts expertly. • Comply with occupational safety instructions responsibly and independently. • Justify activities using research knowledge. • Work independently and take initiatives in line with objectives. Operations are often flexible, systematic, development-oriented, creative and active. • Select the appropriate techniques and models for activities, and justify the choices. • Act in customer-oriented ways and according to the situation. • Promote group activities. • Able to critically apply ethical principles in the subject field in one's conduct and tasks.	• Apply professional concepts expertly and extensively, and manage the big picture. • Develop occupational safety of their operating environment. • Develop operating methods by comparing, combining and selecting research knowledge. • Work independently and innovatively in line with objectives. Activities are mostly creative, focused on developing the workplace and distinctly professional. • Select, combine and develop appropriate techniques and models for activities. • Take initiatives and act responsibly in customer relations, and understand the meaning of customer relationships for the big picture. • Develop and renew activities of

		multidisciplinary teams. • Critically apply ethical principles in the subject field in complex and unanticipated situations.
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BACHELOR'S DEGREE	INITIAL STAGE STUDENTS	GRADUATION STAGE STUDENTS
GOOD grade 3 Students are able to:	• Apply professional concepts systematically. • Apply occupational safety instructions in their activities. • Justify, compare and analyse their activities using general guidelines. • Able to cope independently in different tasks in each operating environment. • Apply acquired techniques and models diversely. • Act professionally in customer situations. • Work in a group in line with objectives. • Justify their activities in accordance with ethical principles.	• Apply professional concepts expertly. • Take care of occupational safety for themselves and the work community, and perceive development objects. • Select methods of operation in accordance with research knowledge and guidelines. • Work systematically and critically in line with objectives in complex situations. Operations are often flexible, systematic, creative and active. • Select the appropriate techniques and models for activities, and justify the choices. • Prioritise and maintain customer relationships. • Promote group activities. • Critically apply ethical principles in the subject field in one's conduct and tasks.

BACHELOR'S DEGREE	INITIAL STAGE STUDENTS	GRADUATION STAGE STUDENTS
SATISFACTORY grade 1 Students are able to:	• Apply most important/individual and appropriate professional concepts, and indicate their familiarity with the knowledge base. • Act safely, although activities are often schematic/ experimental/ fumbling/ self-involved. • Comply with rules and instructions, and justify their activities using provided instructions. • Act appropriately under guidance. • Use acquired techniques and models. • Take customers into account in their actions. • Act as group members. • Act in accordance with ethical	• Apply professional concepts systematically. • Comply with occupational safety instructions responsibly and independently. • Justify and analyse their activities using general guidelines and in accordance with evidence-based information. • Act professionally and responsibly in unanticipated customer and problem situations. • Work independently in different tasks in each operating environment. • Apply acquired techniques and models diversely • Act in customer-oriented ways

	principles.	and according to the situation, and understand customer needs. • Work in a group in line with objectives. • Act and justify their activities in accordance with ethical principles.
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Degree programme's quality evaluation and development

The quality of Laurea's operations is monitored and developed with the quality assurance system (picture 1.). The aim of the quality assurance system is e.g. to extensively guarantee the quality of education and of other activities, systematically produce quality-related data for the development of the operations and to promote recognition of insufficient quality.

Processes have been described as support for Laurea's basic operations. The core process is the Learning by Developing process, its implementation is supported by the Education process, the Strategy and Management process and the HR process.

Strategy Implementation Plan, where the critical success factors and their indicators have been defined, functions as a tool for monitoring and evaluating operations. Central indicators for a degree programme's quality assurance are e.g. progress of studies, learning through research and development, dropout rate, completion of studies and development of competence in graduating students. The results according to the indicators are discussed annually and based on them the appropriate measures for the development of operations are defined.

Besides the data related to critical success factor indicators, Laurea also collects other feedback and evaluation data in order to develop the quality of a degree programme. The degree programme specific curriculum is evaluated annually. In addition to personnel also students and working life representatives take part in the evaluation.

Students' most important channel of evaluating and developing operations is the student feedback system. Student feedback system includes feedback questionnaires that measure the quality of education, student's professional growth and student wellbeing as well as immediate feedback. Collecting feedback data, its systematic processing with students and personnel as well as versatile exploitation of the data enable continuous quality development in education.

Students are actively involved in different development teams both on Laurea and local unit levels. Consultation meetings between student union LAUREAMKO and the steering group are organised regularly. The aim of the meetings is to take into account the students' points of view in the development of the operations. The consultation meetings are held both on Laurea and local unit levels. Student members participate also in Laurea's internal audits which are organised once an academic year. Through the internal audits students contribute to the quality development of education and other operations.



Laureas curriculum as a part of the European Higher Education Area

Finnish higher education institutions have reformed their curricula in accordance with the creation of the European Higher Education Area, i.e., the Bologna Process. The EU's strategic objectives regarding education also guide education in Finland. The Bologna Process covers a total 46 of countries, including some outside the EU. The aim of the Bologna Process is to establish a consistent, compatible and attractive Higher Education Area in Europe by 2010.

To promote the adoption of internationally understandable, comparable degrees, the process has created a system based on two main cycles: undergraduate (Bachelor level) and graduate (Master level). Finland has adapted its degree structure to align it with this European objective. In universities of applied sciences, the two-cycle degree is implemented in a way that students obtain a first-cycle (Bachelor's) degree, after which they have the opportunity to obtain a Master's degree. The requirement for access to Master's training is an undergraduate degree plus three years' work experience. The long-term objective is that approximately 20 per cent of Bachelor's graduates will take a Master's degree.

Finnish universities of applied sciences adopted ECTS (European Credit Transfer and Accumulation System) credits in 2005. In the ECTS, one academic year equals 60 credits. The ECTS is a student-centric system. It is based on the student workload needed to achieve the targets set for each degree programme.

The curricula describe the learning outcomes and competence. From the point of view of promoting international mobility, curricula must be internationally understandable. The aim of standardising the structures and learning targets of degrees is to improve the conditions for mobility within and between higher education institutions during the studies, and also in the workplace after graduation. In terms of the recognition and comparability of degrees taken in different countries, it is important to link learning targets to concrete competence requirements and definitions in the labour market.

Laurea's competence-based curriculum takes into account the demands of the Common European Framework. Studies are accumulated in the form of credits, and study units form larger modules. Competence is defined in terms of the students' learning outcomes. Currently resources are being directed towards further enhancing the ability of the curriculum implementations to generate new competence and innovations for Laurea's operating environment.

Sources:

The Bologna Process

<http://www.minedu.fi/OPM/Koulutus/artikkelit/bologna/index.html>

Global challenges and sustainable development in the curricula

The activities of the higher education institutions are based on responsibility, sustainable development and understanding and appreciating diversity within the higher education community.

A suggested measure of the Strategy for the Internationalisation of Higher Education Institutions is that the higher education institutions will increase education and research cooperation based on national and international networking in order to contribute to the attainment of the goals of the UN Decade of Education for Sustainable Development 2005-2014. Laurea's curricula will be developed according to the Strategy for the Internationalisation of Higher Education Institutions 2009-2015. Out of Laurea values sense of community and social responsibility represent these perspectives most clearly. Moreover, ethical competence of the generic competences of university of applied sciences degrees also means the ability to apply the principles of sustainable development in one's own work. Functioning in the globalising world requires the higher education institutions to critically consider the ethicality of their operational principles.

The goal is that all Finnish degree programmes have at least 30 cr. of studies in foreign language in their curricula. The local units proceed towards this goal gradually. In some degree programmes the goal has already been reached. The goal is also to produce competence that enables participating in solving global problems and building activities on an ethically sustainable foundation.

Source: <http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm23.pdf?lang=fi>

1. year		
OP	STUDIES	
01300	Basic Japanese 1	5
01246	SPSS and Statistical Analysis	5
00207	Working German 1	5
00879	Basic Spanish 2	5
00535	Basic Russian 2	5
E0062	Media Studies	5
E0014	Cross Media and Content Design	5
E0013	User Psychology	5
E0010	Software Requirements	5
E0011	Software Development	10
E0015	Office Tools Programming	5
01241	Highlighting a Target Market	5
00880	Basic Italian 1	5
00534	Basic Russian 1	5
00469	Basics of Spanish Language 1	5
00883	Working Spanish 1	5
E0027	Operating Systems and Networks	5
00524	Basic Spanish 1	5
		0

01300 Basic Japanese 1, 5 cr

The student is able to:

- basic structures of the language and basic vocabulary
- communicate in target language in everyday situations
- write simple messages
- recognize features typical of the target culture

Contents of the study unit:

- basic communication situations
- basic structures
- knowledge on the culture of the language area

Study unit description:

The student reaches the level A1 of European Framework.

Previous studies:

None.

01246 SPSS and Statistical Analysis, 5 cr

The student is able to:

Students will be able to:

- use SPSS when designing survey tools
- understand the principles of questionnaire design
- use statistical analysis in their research

Contents of the study unit:

- SPSS software
- questionnaire design
- statistical analysis of quantitative data

Study unit description:

This study unit helps students to apply SPSS software when analysis quantitative data. Students learn about survey research by designing questionnaires with the help of SPSS and using basic SPSS tools for analysis survey results. The study unit requires knowledge of basic statistical methods.

00207 Working German 1, 5 cr

The student is able to:

- communicate in common workplace situations
- write clear general texts using tools
- recognise typical cultural characteristics of the areas where the language is spoken
- know the main professional vocabulary related to their fields
- use and deepen basic language skills acquired earlier

Contents of the study unit:

- workplace communication events, service events
- small talk
- strengthening and deepening basic grammar skills
- cultural differences

Study unit description:

Students attain skill level B1 as defined in the Common European Framework.

00879 Basic Spanish 2, 5 cr

The student is able to:

- learn the basic structures and vocabulary of the language
- communicate in the target language in fairly simple situations
- write simple, targeted messages
- recognise typical cultural characteristics of the areas where the language is spoken

Contents of the study unit:

- simple communication events
- main structures
- cultural knowledge of the areas where the language is spoken

Study unit description:

Students attain skill level A2 as defined in the Common European Framework.

Previous studies:

Study unit Basics I of the language in question or equivalent language skills acquired elsewhere.

00535 Basic Russian 2, 5 cr

The student is able to:

- learn the basic structures and vocabulary of the language
- communicate in the target language in fairly simple situations
- write simple, targeted messages
- recognise typical cultural characteristics of the areas where the language is spoken

Contents of the study unit:

- simple communication events
- main structures
- cultural knowledge of the areas where the language is spoken

Study unit description:

Students attain skill level A2 as defined in the Common European Framework.

Previous studies:

Study unit Basics I of the language in question or equivalent language skills acquired elsewhere.

E0062 Media Studies, 5 cr

The student is able to:

The students will be able to:

- recognize the impact of interactive tools in service design and service development
- understand the role of visual representation in virtual space
- critically analyze web-pages
- create user centric web-pages
- use photo-shop, dreamweaver, indesign

Contents of the study unit:

- web-page design
- digital tools in service development

Study unit description:

Students learn by involving themselves in working life requirements, by analyzing web-pages and other digital services, through learning the techniques of web-design and by using different ICT tools in practice.

E0014 Cross Media and Content Design, 5 cr

The student is able to:

- Master the sharing of digital media software in a diverse manner
- Design and script multimedia presentations /user interfaces for different platforms
- Master the visual and graphic requirements for different platforms
- Acquire and produce information for international multimedia development environments, and know the effects of various cultures and genres on media expression
- Understand the role of intellectual property rights for digital production

Contents of the study unit:

- Creating themes using the chosen mobile technique
- Creating user interfaces for different media: tv, print, Internet, mobile platforms
- Creating audio and video presentations on mobile platforms

Study unit description:

During the study unit, students use different software in a diverse and efficient way in order to create user interfaces and media presentations for different media platforms. Students create a user interface based on a scripted plan, e.g. a website with multimedia elements (animation, video, image, vector graphics). A project is implemented in partnership with businesses on a mobile platform.

Previous studies:

Study units in the User Interfaces theme, or equivalent knowledge.

E0013 User Psychology, 5 cr**The student is able to:**

- Form an overall view of cognitive, social, cultural and experiential factors related to the use of product and service entities
- Master the basics of user psychology, cognitive science and ergonomics
- Understand the limits in planning interaction between people and technology

Contents of the study unit:

- Interaction between people and technology (cognitive limits)
- Physical and cognitive ergonomics
- People and culture
- Accessibility

Study unit description:

The study unit deepens skills to participate in research and development of interactive technology and services by examining users from the perspective of human sciences. It examines the cognitive limits of interaction between people and technology. Learning takes place through research and development in Laurea's learning environments.

Previous studies:

User-Centred Design study unit, or equivalent knowledge.

E0010 Software Requirements, 5 cr**The student is able to:**

- Use software production methods
- Communicate with customers to define user requirements
- Define user-driven software and usability requirements
- Document software specifications and requirements

Contents of the study unit:

- Software production elements
- Requirements and usability requirements
- Specifications and documentation
- Quality control in development

- Product management

Study unit description:

The study unit examines software production elements in order to develop programs in line with user-driven requirements. It prepares students for working in software production projects and software specification.

Previous studies:

Basics of Programming and User-Centred Design study units, or equivalent knowledge.

E0011 Software Development, 10 cr**The student is able to:**

- Design, implement and test online applications
- Work responsibly in a software development team
- Apply programming skills and agile methods in practical projects

Contents of the study unit:

- Software design
- Web-based applications
- Agile software development methods
- Application framework and design models

Study unit description:

The project-based study unit involves producing online applications. Development work takes place in teams, which adopt agile software development methods and examine the use of different application frameworks.

Previous studies:

Basics of Programming and Object-Oriented Programming study units, or equivalent knowledge.

E0015 Office Tools Programming, 5 cr**The student is able to:**

- Improve their skills in office programs
- Create programs that assist in using office applications

Contents of the study unit:

- Creating event-driven programs
- Practical software-based solutions for office programs

Study unit description:

The study unit applies programming skills to improve the use of office applications. It has a practical approach and focuses on workplace-oriented assignments.

Previous studies:

Basics of Programming study unit, or equivalent knowledge.

01241 Highlighting a Target Market, 5 cr**The student is able to:**

Students will be able to:

- Familiarize themselves with the target market
- Understand the special needs and tourism potential of the target market
- Understand and appreciate cultural differences

Contents of the study unit:

- Country introduction
- Economic, political and social environment of the target market

- Consumer behaviour and Service Cultures
- Tourism trends

Study unit description:

The study unit introduces one of the major developed or emerging tourism markets through its history, geography, business environment and service cultures. The aim is to prepare students to deal with this market, to understand the importance of the market and to be able to design marketing strategy and tourism products taking into account the needs of the targeted country.

00880 Basic Italian 1, 5 cr

00534 Basic Russian 1, 5 cr

The student is able to:

- kielen perusrakenteita sekä perussanastoa
- viestiä kohdekielellä yksinkertaisissa tilanteissa
- kirjoittaa yksinkertaisia ja ohjattuja viestejä
- tunnistaa kielialueen kulttuurille tyypillisiä piirteitä

Contents of the study unit:

- yksinkertaiset viestintätilanteet
- keskeiset rakenteet
- kielialueen kulttuurituntemus

Study unit description:

Opiskelija saavuttaa eurooppalaisen viitekehyksen taitotason A1.

Previous studies:

Ei ole.

00469 Basics of Spanish Language 1, 5 cr

The student is able to:

- understand basic structures and vocabulary of Spanish
- communicate in simple situations of everyday life
- write simple texts
- understand the main points in messages and Spanish speech spoken at normal speed about familiar subjects

Contents of the study unit:

- simple communication events
- everyday life, work, studying, daily routines, everyday situations (telling about oneself, greeting, shopping, ordering food in a restaurant etc.)
- grammar
- e.g. articles, personal pronouns, possessive adjectives, present tense, interrogatives
- cultural knowledge, some characteristic features of Spain and Latin America

Study unit description:

· The course emphasizes acquisition of the four basic language skills: speaking, listening, writing and reading. Basic grammar is introduced and practiced.

Previous studies:

None.

00883 Working Spanish 1, 5 cr

The student is able to:

- communicate in common workplace situations
- write clear general texts using tools
- recognise typical cultural characteristics of the areas where the language is spoken
- know the main professional vocabulary related to their fields
- use and deepen basic language skills acquired earlier

Contents of the study unit:

- workplace communication events, service events
- small talk
- strengthening and deepening basic grammar skills
- cultural differences

Study unit description:

Students attain skill level B1 as defined in the Common European Framework.

Previous studies:

Basic language study unit (10 cr) or upper secondary school courses.

E0027 Operating Systems and Networks, 5 cr

The student is able to:

- Install the most common operating systems
- Perform administration tasks on different operating systems
- Know the basics of data network operations and structure
- Create and administrate local area networks
- Acknowledge the role of data security in the administration of computers and local area networks

Contents of the study unit:

- Installation, administration and maintenance of operating systems
- Basics of data network structure and operations
- Network techniques and connection procedures
- Data security

Study unit description:

The study unit involves practical installation and use of operating systems. Students also learn to install and administrate local area networks. Basic data security techniques are examined.

Previous studies:

Information Technology as a Tool study unit, or equivalent knowledge.

00524 Basic Spanish 1, 5 cr

The student is able to:

- learn the basic structures and vocabulary of the language
- communicate in the target language in fairly simple situations
- write simple, targeted messages
- recognise typical cultural characteristics of the areas where the language is spoken

Contents of the study unit:

- simple communication events
- main structures
- cultural knowledge of the areas where the language is spoken

Study unit description:

Students attain skill level A1 as defined in the Common European Framework.

Previous studies:

None.