

**Curriculum at LAB University of Applied Sciences
2021-2022**

**Bachelor of Business Administration, Business Information
Technology 21S, full-time studies, Lahti**

Code	Name	1 y	2 y	3 y	4 y	ECTS total
IT21SLTI-1001 Common studies						15
AY00BU33	Developing professional competence 1	1				1
AY00BU34	Developing professional competence 2		1			1
AY00BU35	Developing professional competence 3			1		1
A300CE13	Orientation to Sustainability Thinking	2				2
KE00BT61	English for Work	4				4
KR00BU42	Swedish for Work, Spoken	1				1
KR00BU43	Swedish for Work, Written	1				1
KS00BT59	Expert Communication Skills	4				4
IT21SLTI-1002 Professional Core Competence						105
IT21SLTI-1003 Business studies						15
AL00CD61	Customer Relations and Marketing	5				5
AL00CD64	Financial Accounting	5				5
AL00BV14	Project management	5				5
IT21SLTI-1004 Information systems in business organisation						15
AL00CB42	Business Processes and Information Systems		5			5
AL00CB43	Information System Design		5			5
AL00CB44	Designing a Digital Service		5			5
IT21SLTI-1005 Website development						15
AL00CB45	Static Websites	5				5
AL00CB46	Web Publishing and Usability	5				5
AL00CB47	Website Development Project	5				5
IT21SLTI-1006 Application development						15
AL00CB48	Introduction to Programming	4				4
AL00CB49	Introduction to Programming Logic	2				2
AL00CB50	Software Development Process	4				4
AL00CB51	Iterative Application Project	5				5
IT21SLTI-1007 Software development						15
AL00CB52	Object-oriented Programming		5			5
AL00CB53	Data Storages		5			5
AL00CB54	Agile Application Development Project		5			5

IT21SLTI-1008 Dynamic web development					15
AL00CB55	Browser-side Technologies		5		5
AL00CB56	Three-tier Architecture Technologies		5		5
AL00CB57	Dynamic Website Development Project		5		5
IT21SLTI-1009 Development of IT expertise					15
AL00CB58	Utilising Data in Business	5			5
AL00CD68	Anticipating Future Trends and Innovation Process			5	5
AL00CD71	Research and Development			5	5
IT21SLTI-1010 Complementary Competence					45
IT21SLTI-1011 IT project					15
AL00CB61	Project Communication and Reporting			5	5
AL00CB62	Real-Life IT Project and Practices			10	10
IT21SLTI-1012 Online business					15
AL00CB63	Online Business		5		5
AL00CB64	Online Store Solutions		5		5
AL00CB65	Setting up and Developing an Online Store		5		5
IT21SLTI-1014 Software business					15
AL00CB66	Software Business			5	5
AL00CB67	Software Productization			5	5
AL00CB68	Software Business Environment			5	5
IT21SLTI-1022 Business Intelligence					15
AL00CJ76	RPA and AI				0
AL00CJ77	Data Management and Data Platforms				0
AL00CJ78	Data Analytics				0
IT21SLTI-1021 Other studies in LAB (i.e. Language and communication)					0
AY00CC41	QuantiLAB				0
AY00CC40	QualiLAB				0
LA00BR31	Working in a Project - DuuniExpo				0
AY00CA99	Working in a Project				0
AY00CC65	Leadership training in Military Service				0
AY00CG55	Developing Your Learning Skills				0
AY00CC26	LAB@key				0
IT21SLTI-1018 Other University Level Studies					0
IT21SLTI-1019 Exchange studies					0
IT21SLTI-1015 Practical Training					30
HA00CD56	Practical Training		10		10
HA00BU37	Practical Training 2			10	10
HA00BU38	Practical Training 3			10	10
IT21SLTI-1016 Thesis					15
AO00BU39	Thesis Planning			5	5

AO00BU40	Thesis Project			5	5
AO00BU41	Thesis Report			5	5

IT21SLTI-1001 Common studies: 15 ECTS

AY00BU33 Developing professional competence 1: 1 ECTS

Learning outcomes

The student is able to

- plan their own learning and cooperate in situations related to their own field of studies
- recognize their own competence and the needs to develop them further and to plan their career path observing them
- act as a group member
- operate in the learning environments of LAB University of Applied Sciences
- picture their own field of studies and its future skills
- give feedback on tuition and services and thus participate in the development of education

AY00BU34 Developing professional competence 2: 1 ECTS

Learning outcomes

The student is able to

- utilize various learning opportunities in curriculum
- recognize and aim their own competences to be in level with the future career requirements
- create a study plan that supports the future career goal
- give feedback on tuition and services and thus participate in the development of education

AY00BU35 Developing professional competence 3: 1 ECTS

Learning outcomes

The student is able to

- identify themselves as a learner and develop their own learning skills
- evaluate innovative or alternative future competences required in their own field
- recognize and aim their own competences to be in level with the future career requirements
- masters the professional concepts of their own field and is able to point out their competencies during job recruitment processes
- give feedback on tuition and services and thus participate in the development of education

A300CE13 Orientation to Sustainability Thinking: 2 ECTS

Learning outcomes

Identify and define central concepts and frameworks related to sustainability. Recognize the interconnectedness of economic, social and environmental sustainability issues. Understand and develop own individual role in driving sustainability.

Evaluation criterias

Level 1

Pass-Fail

KE00BT61 English for Work: 4 ECTS

Learning outcomes

Proficiency level: B2

The student is able to

- communicate clearly and effectively in different generic and field-specific workplace situations both orally and in writing
- find, evaluate and use information effectively
- function collaboratively in international working environments.

KR00BU42 Swedish for Work, Spoken: 1 ECTS

Learning outcomes

The student is able to

- convey and validate arguments
- use vital field-specific vocabulary
- communicate essential matters about their education, work experience and tasks
- present their field-specific operational environment
- communicate in various working life situations in Swedish.

The student completes the Public Administration Language Test in Swedish.

KR00BU43 Swedish for Work, Written: 1 ECTS

Learning outcomes

The student is able to

- use vital field-specific vocabulary
- communicate essential matters about their education, work experience and tasks
- understand and produce various short texts related to studies and working life
- acquire information on their field in Swedish
- use online dictionaries.

The student completes the Public Administration Language Test in Swedish.

KS00BT59 Expert Communication Skills: 4 ECTS

Learning outcomes

Proficiency level: C2

The student masters Finnish language as a mother tongue in all professional spoken and written communication situations.

IT21SLTI-1002 Professional Core Competence: 105 ECTS

IT21SLTI-1003 Business studies: 15 ECTS**AL00CD61 Customer Relations and Marketing: 5 ECTS****Learning outcomes**

The student is able to

- determine the key concepts of marketing and customer-oriented business
- identify the phases of a marketing and sales process
- recognise customer needs and understand their significance for the success of a company

AL00CD64 Financial Accounting: 5 ECTS**Learning outcomes**

The student is able to

- take care of the accounting of a small company and draw up the financial statements
- understand the principles of VAT
- recognise how product costs are formed and apply this knowledge in the analysis of company profitability

AL00BV14 Project management: 5 ECTS**Learning outcomes**

The student is able to

- apply creative problem solving
- plan, implement and evaluate a project
- use the methods and participatory tools used in project management

IT21SLTI-1004 Information systems in business organisation: 15 ECTS**AL00CB42 Business Processes and Information Systems: 5 ECTS****Learning outcomes**

The student knows:

- How to model business processes, information flows and data warehouses using formal notations methods.
- The business process IT-systems: supply chain and network systems (SCM), enterprise resource planning (ERP) and customer relationship management (CRM) systems, as well as competence management (CM) and other management systems (DSS, MIS).
- The importance of quality control in business processes and information systems.

AL00CB43 Information System Design: 5 ECTS**Learning outcomes**

Student is able to

- design information systems to support business functions
- form a requirement specification for an information system
- model an information system with applicable methods

- utilise basic usability principles in design
- take legal concerns into account in their work regarding information systems

AL00CB44 Designing a Digital Service: 5 ECTS

Learning outcomes

Student is able to

- ideate and plan a digital service using user driven methods
- utilize co-creation methods
- visualize a digital service
- analyze a meaning of a digital service in business
- know the affecting regulation eg GDPR for a planning of a digital service

IT21SLTI-1005 Website development: 15 ECTS

AL00CB45 Static Websites: 5 ECTS

Learning outcomes

The student is able to

- create an HTML site that uses CSS and effectively edit an existing site
- identify needs for static and dynamic content
- use the built-in tools of the web browser to study the structure of the dynamic content and the view of the browser
- describe the principle of server / client architecture

AL00CB46 Web Publishing and Usability: 5 ECTS

Learning outcomes

The student is able to

- install and maintain content management and publishing systems and their add-ons securely
- use publishing systems to publish content
- identify needs and make choices between different publishing systems
- take into account usability and accessibility when designing the website

AL00CB47 Website Development Project: 5 ECTS

Learning outcomes

The student is able to

- use teamwork software in a variety of ways
- implement the website together with the other members of the team
- prepare the requirements specification, project plan, implementation plan, test plan and maintenance documentation for the website
- carry out the agreed tasks in accordance with the project plan
- install a simple web server securely

IT21SLTI-1006 Application development: 15 ECTS

AL00CB48 Introduction to Programming: 4 ECTS

Learning outcomes

Student is able to

- apply a modern software development environment (SDE)
- apply the basic structures of programming
- implement an interactive and modular application

AL00CB49 Introduction to Programming Logic: 2 ECTS

Learning outcomes

Student is able to

- convert numbers from one number system to another
- perform basic arithmetic operations with binary numbers
- construct and simplify compound propositions

AL00CB50 Software Development Process: 4 ECTS

Learning outcomes

The student is able to

- describe the work steps of software development processes
- describe the features of modern and commonly used software development processes
- use tools that support software development processes

AL00CB51 Iterative Application Project: 5 ECTS

Learning outcomes

Student is able to

- define, implement and report an iterative project
- act in different roles of a software development project
- implement a HTML user interface following the design
- implement the business logic of a web application
- programmatically parse required data from a structured data set

IT21SLTI-1007 Software development: 15 ECTS

AL00CB52 Object-oriented Programming: 5 ECTS

Learning outcomes

Student is able to

- explain the key concepts of object oriented programming
- design and implement applications with object oriented language
- apply efficiently a modern software development environment
- design a maintainable software architecture
- design unit test

AL00CB53 Data Storages: 5 ECTS

Learning outcomes

Student is able to

- form queries using SQL
- apply the basic principles of normalization
- maintain databases
- describe the principles of database transactions
- explain the importance of information security in data storage
- describe alternative data storage types

AL00CB54 Agile Application Development Project: 5 ECTS

Learning outcomes

Student is able to

- collect and apply information to implement a software development project
- analyze client needs and write corresponding project requirements
- design and implement a software project that uses data storages
- apply agile methods on a practical project
- act alone and as a project group member to fulfill the project goals

IT21SLTI-1008 Dynamic web development: 15 ECTS

AL00CB55 Browser-side Technologies: 5 ECTS

Learning outcomes

The student is able to

- present www content dynamically with JavaScript and its extensions
- form a dynamic one page application using JavaScript frameworks and libraries
- install an application server and maintain it securely
- publish information and host applications on a server

AL00CB56 Three-tier Architecture Technologies: 5 ECTS

Learning outcomes

The student is able to

- recognize the opportunities and limitations presented by application frameworks
- apply commonly used design patterns
- design and implement an application based on server-client principles
- install and maintain a three-tier architecture application

AL00CB57 Dynamic Website Development Project: 5 ECTS

Learning outcomes

The student is able to

- plan and apply working methods to a team to ensure effectiveness
- divide a project into meaningful parts and estimate the time requirements

- implement their part of an application and documentation on the project
- choose a process model applicable to the project and apply it

IT21SLTI-1009 Development of IT expertise: 15 ECTS

AL00CB58 Utilising Data in Business: 5 ECTS

Learning outcomes

The student knows:

- How to define the organization's internal and external data flows and sources of information in business value creation.
- The life cycle of the data and the steps involved, production, transfer, utilization, reliability level, and validity period.
- Common methods and tools to collect and process the data.
- The appropriate visualization methods.

AL00CD68 Anticipating Future Trends and Innovation Process: 5 ECTS

Learning outcomes

The student is able to

- anticipate the changes in their own operational environment
- utilise the futures research materials produced by national and international societies in their own field of studies
- use the terminology and methods of futures research in the research and development of their own field

AL00CD71 Research and Development: 5 ECTS

Learning outcomes

The student is able to

- obtain, utilise and assess R&D-related information and their sources critically
- follow the rules of ethical principles applied in all research activities
- use the most typical research and development methods of their own field
- write a scientific report and is familiar with the requirements for language and style and how to document the sources

IT21SLTI-1010 Complementary Competence: 45 ECTS

IT21SLTI-1011 IT project: 15 ECTS

AL00CB61 Project Communication and Reporting: 5 ECTS

Learning outcomes

The student is able to

- communicate effectively and distribute information in project meetings
- produce concise professional project documentation

- prepare and give engaging professional presentations
- communicate with various project stakeholders

AL00CB62 Real-Life IT Project and Practices: 10 ECTS

Learning outcomes

The student is able to

- take responsibility over different roles in an IT project
- apply existing and new professional technical skills and knowledge in solving the given problem
- act responsibly as a member of a project group
- apply different methods and practical tools in project preparation and management
- create project documentation and take care of version control

IT21SLTI-1012 Online business: 15 ECTS

AL00CB63 Online Business: 5 ECTS

Learning outcomes

The student is able to

- evaluate online business models as part of a company's business strategy
- recognise the resource needs of online business
- plan and describe a customer-oriented service process utilising a web store

AL00CB64 Online Store Solutions: 5 ECTS

Learning outcomes

The student is able to

- choose the most suitable online store solution and components for a company's operating environment
- recognise the services used in online store solutions and their interfaces
- name the factors affecting the cost effectiveness of an online store

AL00CB65 Setting up and Developing an Online Store: 5 ECTS

Learning outcomes

The student is able to

- set up an online store suitable for a company's business
- add services to an online store to support business
- apply methods affecting an online store's cost effectiveness

IT21SLTI-1014 Software business: 15 ECTS

AL00CB66 Software Business: 5 ECTS

Learning outcomes

The student is able to

- form a business plan for a software product
- recognize the unique aspects of software business
- communicate their ideas regarding software business to stakeholders

AL00CB67 Software Productization: 5 ECTS

Learning outcomes

The student is able to

- form a plan for software product management
- analyse the cost structure and lifecycle of a software product
- choose appropriate sales, marketing and distribution channels for a software product

AL00CB68 Software Business Environment: 5 ECTS

Learning outcomes

The student is able to

- recognise the unique features of software business
- assess the role of networks and internationalisation in software business
- analyse funding models used in software business

IT21SLTI-1022 Business Intelligence: 15 ECTS

AL00CJ76 RPA and AI: 5 ECTS

Learning outcomes

The student is able to

- understand RPA and AI concepts, and its value proposition
- is able to identify potential automation examples and draw up a plan for an implementation
- use RPA and AI tools

AL00CJ77 Data Management and Data Platforms: 5 ECTS

Learning outcomes

The student is able to

- find solutions to business data management, data storages and data sharing in various platforms
- work in the process to model an Entity Relationship diagram
- use data management system services and understands their purpose of use
- master relational database concepts and design
- use basic Structural Query Language, SQL commands
- create a simple relational database based on specified requirements
- data warehousing technologies, usage and restrictions
- data preparation (preprocessing) for analysis, Extract, Transform, Load (ETL) process to integrate data from multiple sources

AL00CJ78 Data Analytics: 5 ECTS

Learning outcomes

The student is able to

- assess the relevance and accuracy of the data
- identify the possibilities of utilizing data analytics and AI in business
- utilize methods and tools of predictive analytics and AI in forecasting

IT21SLTI-1021 Other studies in LAB (i.e. Language and communication): 0 ECTS**AY00CC41 QuantiLAB: 3 ECTS****Learning outcomes**

Student is able to

- acquire, utilise and evaluate information related to her/his thesis
- follow ethical principles related to research integrity
- use quantitative research methods in her/his thesis
- report about research findings in her/his thesis according to academic reporting principles

AY00CC40 QualiLAB: 3 ECTS**Learning outcomes**

Student is able to

- acquire, utilise and evaluate information related to her/his thesis
- follow ethical principles related to research integrity
- use qualitative research methods in her/his thesis
- report about research findings in her/his thesis according to academic reporting principles

LA00BR31 Working in a Project - DuuniExpo: 5 ECTS**Learning outcomes**

For 1.-2. year students learning outcomes for early study phase are applied, and for 3.-4. year students learning outcomes for the graduation phase.

Early-skill stage/learning outcomes:

The student is able to:

- use the concepts related to the project topic and theme and shows familiar with the paternity-related project data base
- describe the rationale, needs and criteria for project activities
- work in projects in accordance with the administration
- apply professional methods and working practices related to the project topic
- operate safely, ethically and customer-oriented project
- action required by the project in interactive situations
- operate safely, ethically and customer-oriented project

Graduation competence/learning outcomes:

The student is able to:

- use the concepts related to the project in a coherent and justify their actions on the basis of the knowledge base
- find starting points, needs and criteria for project activities

- to act purposefully, to assess the activity and make suggestions for improvement
- applied to the project a variety of different techniques, methods and ways of working
- operate safely, ethically and customer-oriented
- to act responsibly and in a target group and as otherwise required by the project in interactive situations

AY00CA99 Working in a Project: 5 ECTS

Learning outcomes

For 1.-2. year students learning outcomes for early study phase are applied, and for 3.-4. year students learning outcomes for the graduation phase.

Early-skill stage/learning outcomes:

The student is able to:

- use the concepts related to the project topic and theme and shows familiar with the paternity-related project data base
- describe the rationale, needs and criteria for project activities
- work in projects in accordance with the administration
- apply professional methods and working practices related to the project topic
- operate safely, ethically and customer-oriented project
- action required by the project in interactive situations
- operate safely, ethically and customer-oriented project

Graduation competence/learning outcomes:

The student is able to:

- use the concepts related to the project in a coherent and justify their actions on the basis of the knowledge base
- find starting points, needs and criteria for project activities
- to act purposefully, to assess the activity and make suggestions for improvement
- applied to the project a variety of different techniques, methods and ways of working
- operate safely, ethically and customer-oriented
- to act responsibly and in a target group and as otherwise required by the project in interactive situations

AY00CC65 Leadership training in Military Service: 5 ECTS

Learning outcomes

Leadership skills in military service.

AY00CG55 Developing Your Learning Skills: 3 ECTS

Learning outcomes

Student knows

- his/her metaskills related to learning
- his/her strengths and weaknesses
- how to find tools to improve his/her learning skills

AY00CC26 LAB@key: 1 ECTS

Learning outcomes

Student is able to

- use diverse digital tools and learning environments
- evaluate own professional development

IT21SLTI-1018 Other University Level Studies: 0 ECTS**IT21SLTI-1019 Exchange studies: 0 ECTS****IT21SLTI-1015 Practical Training: 30 ECTS****HA00CD56 Practical Training: 10 ECTS****Learning outcomes**

The student is able to

- describe work-related phenomena and use related concepts
- act in a productive way, following the practices of the workplace and the ethical principles of the profession
- use the techniques, work methods, models and processes that they have learnt
- act in a customer-oriented way in interactive situations in the workplace and in the cooperation network
- evaluate and develop their own competence in the work done in practical training

HA00BU37 Practical Training 2: 10 ECTS**Learning outcomes**

The student is able to

- describe work-related phenomena and use related concepts
- act in a productive way, following the practices of the workplace and the ethical principles of the profession
- use the techniques, work methods, models and processes that they have learnt
- act in a customer-oriented way in interactive situations in the workplace and in the cooperation network
- evaluate and develop their own competence in the work done in practical training

HA00BU38 Practical Training 3: 10 ECTS**Learning outcomes**

The student is able to

- describe work-related phenomena and use related concepts
- act in a productive way, following the practices of the workplace and the ethical principles of the profession
- use the techniques, work methods, models and processes that they have learnt
- act in a customer-oriented way in interactive situations in the workplace and in the cooperation network
- evaluate and develop their own competence in the work done in practical training

IT21SLTI-1016 Thesis: 15 ECTS**AO00BU39 Thesis Planning: 5 ECTS****Learning outcomes**

The student is able to:

- describe the objectives and core contents of their thesis
- plan and describe the stages of the thesis process
- take into account the possible research permit and copyright issues.

AO00BU40 Thesis Project: 5 ECTS**Learning outcomes**

The student is able to:

- implement the thesis on the basis of an approved thesis plan.

AO00BU41 Thesis Report: 5 ECTS**Learning outcomes**

The student is able to:

- present the results or output of their thesis
- report on their thesis in writing in accordance with the thesis guidelines of LAB University of Applied Sciences
- write a maturity test.