

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

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

Code	Name	1 y	2 y	3 y	4 y	ECTS total
<b>IT21SLPR-1001 Common studies</b>						<b>15</b>
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
<b>IT21SLPR-1002 Professional Core Competence</b>						<b>104</b>
<b>IT21SLPR-1015 Software Development Fundamentals</b>						<b>15</b>
AL00CM17	Basics of Programming	5				5
AL00CM18	Software Engineering	5				5
AL00CM19	Web Technologies	5				5
<b>IT21SLPR-1016 Object Oriented Software Development</b>						<b>15</b>
AL00CM20	Basics of Object Oriented Programming	5				5
AL00CM21	Databases	5				5
AL00CM22	Project Work 1		5			5
<b>IT21SLPR-1017 Full Stack Development</b>						<b>15</b>
AL00CM23	Front-End Tools		5			5
AL00CM24	Back-End Tools		5			5
AL00CM25	Software Development Automation			5		5
<b>IT21SLPR-1018 Mobile Application Development</b>						<b>16</b>
AL00CM26	Android and Java Programming		5			5
AL00CM27	Mobile Application Development			5		5
AL00CM28	Project Work 2			6		6
<b>IT21SLPR-1019 Development of IT Expertise</b>						<b>15</b>
AL00CB58	Utilising Data in Business	5				5
AL00CD68	Anticipating Future Trends and Innovation Process			5		5
AL00CD71	Research and Development		5			5
<b>IT21SLPR-1020 Business Studies</b>						<b>28</b>

AL00CD61	Customer Relations and Marketing	5				5
AL00CD64	Financial Accounting	5				5
AL00CD66	Business Mathematics	4				4
AL00CD67	Profitability and Budgeting		5			5
AL00CD69	Entrepreneurship, Transforming Innovations into Sustainable Business	4				4
AL00CD75	Digital Tools	5				5
<b>IT21SLPR-1008 Complementary Competence</b>						<b>46</b>
<b>IT21SLPR-1011 Business Intelligence</b>						<b>15</b>
AL00CJ76	RPA and AI					0
AL00CJ77	Data Management and Data Platforms					0
AL00CJ78	Data Analytics					0
<b>IT21SLPR-1022 Online business</b>						<b>15</b>
AL00CB63	Online Business					0
AL00CB64	Online Store Solutions					0
AL00CB65	Setting up and Developing an Online Store					0
<b>IT21SLPR-1021 Other studies in LAB (i.e. Language and communication)</b>						<b>0</b>
AY00CC26	LAB@key					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
<b>IT21SLPR-1013 Other University Level Studies</b>						<b>0</b>
<b>IT21SLPR-1014 Exchange studies</b>						<b>0</b>
<b>IT21SLPR-1009 Practical Training</b>						<b>30</b>
HA00CD56	Practical Training		10			10
HA00BU37	Practical Training 2			10		10
HA00BU38	Practical Training 3			10		10
<b>IT21SLPR-1010 Thesis</b>						<b>15</b>
AO00BU39	Thesis Planning			5		5
AO00BU40	Thesis Project			5		5
AO00BU41	Thesis Report				5	5

**IT21SLPR-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.

### **IT21SLPR-1002 Professional Core Competence: 104 ECTS**

### **IT21SLPR-1015 Software Development Fundamentals: 15 ECTS**

### **AL00CM17 Basics of Programming: 5 ECTS**

#### **Learning outcomes**

Student is able to

- design and implement simple computer programs
- create modular applications using suitable data structures and algorithms
- analyze program code written by others

## **AL00CM18 Software Engineering: 5 ECTS**

### **Learning outcomes**

The student is able to

- understand the principles of software project development and management
- explain at a general level the main steps involved in the professional software development process
- to work in a software project as a stakeholder - either as an expert within the vendor organization or as a customer representative

## **AL00CM19 Web Technologies: 5 ECTS**

### **Learning outcomes**

The student is able to

- Understand the principles of web pages and applications and their architectures
- understand the core web technologies and the concepts of front-end development
- understand responsive web design
- utilize external css and javascript libraries in front-end development

## **IT21SLPR-1016 Object Oriented Software Development: 15 ECTS**

## **AL00CM20 Basics of Object Oriented Programming: 5 ECTS**

### **Learning outcomes**

The student is able to

- implement the basic object-oriented programming principles independently
- use the principles of object-oriented design in any object-oriented languages
- knows the basics of object description language, Unified Modeling language (UML)

## **AL00CM21 Databases: 5 ECTS**

### **Learning outcomes**

Student

- knows relational database's key terms and actions
- understands the relational data model principles
- can model Entity Relationship diagram and can build a relational database based on an ER model
- knows the services offered by a Database Management System
- can use Structured Query Language (SQL) for operations in a database

## **AL00CM22 Project Work 1: 5 ECTS**

### **Learning outcomes**

The student is able to

- design and implement an information technology project
- carry out a project in co-operation with a business or organization

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- handle project management tasks in every phase of project management life cycle

## **IT21SLPR-1017 Full Stack Development: 15 ECTS**

### **AL00CM23 Front-End Tools: 5 ECTS**

#### **Learning outcomes**

The student is able to

- design and implement web applications that adapts to different screen sizes using common web development technologies and frameworks
- understand how to specify and use back-end services in the front-end
- utilize modern application frameworks and libraries when building easy to maintain, user-friendly and scalable solutions

### **AL00CM24 Back-End Tools: 5 ECTS**

#### **Learning outcomes**

The student

- knows the basics of .NET software architecture
- knows ASP.NET technology and can apply it
- can build applications using Visual Studio
- can use SQL Server in .NET applications
- can apply design patterns when implementing applications
- can implement web services
- can implement a simple application based on components
- can document the implemented application

### **AL00CM25 Software Development Automation: 5 ECTS**

#### **Learning outcomes**

The student is able to

- understand the main DevOps principles and practices
- apply the devops methods in testing, deployment and maintenance
- find the right DevOps tools for the purpose

## **IT21SLPR-1018 Mobile Application Development: 16 ECTS**

### **AL00CM26 Android and Java Programming: 5 ECTS**

#### **Learning outcomes**

The student is able to

- implement simple applications on Android mobile platform
- use major components related to Android application development

### **AL00CM27 Mobile Application Development: 5 ECTS**

**Learning outcomes**

The student is able to

- implement simple applications on different mobile platforms

**AL00CM28 Project Work 2: 6 ECTS****Learning outcomes**

The student is able to

- design and manage a multi person project
- use the substance knowledge of his/her studies in a project
- work professionally as a member of the project team
- document and report the work done in a project

**IT21SLPR-1019 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

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## **IT21SLPR-1020 Business Studies: 28 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

### **AL00CD66 Business Mathematics: 4 ECTS**

#### **Learning outcomes**

Student is able to

- understand common mathematical methods used in real business life and when to use them.
- practice critical thinking and handles the problem solving skills.
- find and utilise up to date information.
- find confidence by gaining routine of calculation.

### **AL00CD67 Profitability and Budgeting: 5 ECTS**

#### **Learning outcomes**

The student is able to

- produce cost-volume-profit analyses
- identify cost drivers and apply cost data in price setting
- draw up budgets and define the budgeting process

### **AL00CD69 Entrepreneurship, Transforming Innovations into Sustainable Business: 4 ECTS**

#### **Learning outcomes**

Student is able to

- understand entrepreneurship through personal development
- find and utilize different customer oriented business opportunities
- evaluate profitability of business idea
- develop business models



**AL00CD75 Digital Tools: 5 ECTS****Learning outcomes**

The student is able to

- utilise essential office applications in their studies
- utilise cloud services as part of team work
- function in an online learning environment

**IT21SLPR-1008 Complementary Competence: 46 ECTS****IT21SLPR-1011 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

**IT21SLPR-1022 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

**IT21SLPR-1021 Other studies in LAB (i.e. Language and communication): 0 ECTS****AY00CC26 LAB@key: 1 ECTS****Learning outcomes**

Student is able to

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

**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

### **IT21SLPR-1013 Other University Level Studies: 0 ECTS**

### **IT21SLPR-1014 Exchange studies: 0 ECTS**

### **IT21SLPR-1009 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 into 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 into the work done in practical training

### **IT21SLPR-1010 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.