

**Curriculum at LAB University of Applied Sciences  
2023-2024**

**Bachelor of Business Administration, Business Information  
Technology 23S, full-time studies, Lahti**

Code	Name	ECTS total
LLTIIT23S	Bachelor of Business Administration, Business Information Technology 23S, full-time studies, Lahti	210
<b>LLTIIT23S-1019 CORE COMPETENCE</b>		<b>164</b>
<b>LLTIIT23S-1001 Common Studies</b>		<b>15</b>
AY00BU33	Developing professional competence 1	1
AY00BU34	Developing professional competence 2	1
AY00BU35	Developing professional competence 3	1
A300CE13	Orientation to Sustainability Thinking	2
KE00BT61	English for Work	4
KR00BU42	Swedish for Work, Spoken	1
KR00BU43	Swedish for Work, Written	1
KS00BT59	Expert Communication Skills	4
<b>LLTIIT23S-1002 Professional Core Competence</b>		<b>104</b>
<b>LLTIIT23S-1003 Business studies</b>		<b>14</b>
AL00CD61	Customer Relations and Marketing	5
AL00CD64	Financial Accounting	5
AL00CD69	Entrepreneurship, Transforming Innovations into Sustainable Business	4
<b>LLTIIT23S-1004 Information systems in business organisation</b>		<b>15</b>
AL00CB42	Business Processes and Information Systems	5
AL00CB43	Information System Design	5
AL00CB44	Designing a Digital Service	5
<b>LLTIIT23S-1005 Website development</b>		<b>15</b>
AL00CB45	Static Websites	5
AL00CB46	Web Publishing and Usability	5
AL00CB47	Website Development Project	5
<b>LLTIIT23S-1006 Application development</b>		<b>15</b>
AL00CB48	Introduction to Programming	4
AL00CB49	Introduction to Programming Logic	2
AL00CB50	Software Development Process	4
AL00CB51	Iterative Application Project	5
<b>LLTIIT23S-1007 Software development</b>		<b>15</b>

AL00CB52	Object-oriented Programming	5
AL00CB53	Data Storages	5
AL00CB54	Agile Application Development Project	5
<b>LLTIIT23S-1008 Dynamic web development</b>		<b>15</b>
AL00CB55	Browser-side Technologies	5
AL00CB56	Three-tier Architecture Technologies	5
AL00CB57	Dynamic Website Development Project	5
<b>LLTIIT23S-1009 Development of IT expertise</b>		<b>15</b>
AL00CB58	Utilising Data in Business	5
AL00CD68	Anticipating Future Trends and Innovation Process	5
AL00CD71	Research and Development	5
<b>LLTIIT23S-1017 Practical Training</b>		<b>30</b>
HA00CD56	Practical Training	10
HA00BU37	Practical Training 2	10
HA00BU38	Practical Training 3	10
<b>LLTIIT23S-1018 Thesis</b>		<b>15</b>
AO00BU39	Thesis Planning	5
AO00BU40	Thesis Project	5
AO00BU41	Thesis Report	5
<b>LLTIIT23S-1010 COMPLEMENTARY COMPETENCE</b>		<b>46</b>
<b>LLTIIT23S-1011 IT project</b>		<b>15</b>
AL00CB61	Project Communication and Reporting	5
AL00CB62	Real-Life IT Project and Practices	10
<b>LLTIIT23S-1012 Online business</b>		<b>15</b>
AL00CB63	Online Business	5
AL00CB64	Online Store Solutions	5
AL00CB65	Setting up and Developing an Online Store	5
<b>LLTIIT23S-1013 Software business</b>		<b>15</b>
AL00CB66	Software Business	5
AL00CB67	Software Productization	5
AL00CB68	Software Business Environment	5
<b>LLTIIT23S-1014 Other studies in LAB (i.e. Language and communication)</b>		<b>0</b>
AY00CC41	QuantiLAB	3
AY00CC40	QualiLAB	3
LA00BR31	Working in a Project - DuuniExpo	5
AY00CA99	Working in a Project	5
AY00CC65	Leadership training in Military Service	5
AY00CG55	Developing Your Learning Skills	3
AY00CC26	LAB@key	1
<b>LLTIIT23S-1015 Other University Level Studies</b>		<b>0</b>

**LLTIIT23S-1016 Exchange studies**

**0**

**LLTIIT23S Bachelor of Business Administration, Business Information Technology 23S, full-time studies, Lahti: 210 ECTS**

**LLTIIT23S-1019 CORE COMPETENCE: 164 ECTS**

**LLTIIT23S-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.

**LLTIIT23S-1002 Professional Core Competence: 104 ECTS****LLTIIT23S-1003 Business studies: 14 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

**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

**LLTIIT23S-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

## **LLTIIT23S-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

### **LLTIIT23S-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

### **LLTIIT23S-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

### **LLTIIT23S-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

## **LLTIIT23S-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

## **LLTIIT23S-1017 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

**LLTIIT23S-1018 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.

### **LLTIIT23S-1010 COMPLEMENTARY COMPETENCE: 46 ECTS**

#### **LLTIIT23S-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

### **LLTIIT23S-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

**LLTIIT23S-1013 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

**LLTIIT23S-1014 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

### **LLTIIT23S-1015 Other University Level Studies: 0 ECTS**

### **LLTIIT23S-1016 Exchange studies: 0 ECTS**