

Curriculum at LAB University of Applied Sciences  
2021-2022

**Bachelor of Culture and Arts, Product Design and Intelligent  
Mobility 21S, full-time studies, Lahti**

Code	Name	1 y	2 y	3 y	4 y	ECTS total
<b>TEMU21SLTI-1001 Common studies</b>						<b>15</b>
AY00BU47	Developing professional competence 1	1				1
AY00BU48	Developing professional competence 2		1			1
AY00BU49	Developing professional competence 3			1		1
A300CJ89	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>TEMU21SLTI-1002 Professional Core Competence</b>						<b>90</b>
<b>TEMU21SLTI-1019 Foundation Studies in Fine Arts</b>						<b>15</b>
AM00CE41	Art History	5				5
AM00CF73	Color, Form and Composition	5				5
AM00BV66	Visual Design	5				5
<b>TEMU21SLTI-1021 Basic Studies in Design</b>						<b>30</b>
AM00BW57	Workshop license	5				5
AM00CE47	Visual Design Tools	5				5
AM00CH64	Presentation Methods	5				5
AM00CF02	Introduction to Design	5				5
AM00BW40	Ergonomics and Accessibility	5				5
AM00CF03	Basics of Service Design		5			5
<b>TEMU21SLTI-1023 Basic Studies in Industrial Design</b>						<b>15</b>
AM00CF04	Advanced Prototyping	5				5
AM00CM66	Working in CAD	5				5
AM00BW38	Structures and Materials		5			5
<b>TEMU21SLTI-1024 Core Studies in Industrial Design</b>						<b>20</b>
AM00CM43	CAD, 3D and visualization		5			5
AM00CF00	Usability, User Interfaces and Interaction Design		5			5
AM00CF07	Marketing and branding		5			5
AM00CF06	VR/XR/AR for Design		5			5
<b>TEMU21SLTI-1022 Creative Professional</b>						<b>10</b>

AM00CD93	A More Sustainable Life – International project		5			5
AM00CE55	Business Skills and Professional Practices			5		5
<b>TEMU21SLTI-1012 Complementary Competence</b>						<b>90</b>
<b>TEMU21SLTI-1030 Studio 1</b>						<b>20</b>
AM00CM60	Sustainable Design Studio		20			20
<b>TEMU21SLTI-1026 Studio 2</b>						<b>20</b>
AM00CM79	Product Design Studio			20		20
<b>TEMU21SLTI-1027 Studio 3</b>						<b>20</b>
AM00CM78	Product Development Studio			20		20
<b>TEMU21SLTI-1028 Studio 4</b>						<b>20</b>
AM00CM67	Intelligent Mobility Studio				20	20
<b>TEMU21SLTI-1029 Elective Studies</b>						<b>10</b>
<b>TEMU21SLTI-1017 Practical Training</b>						<b>30</b>
HA00CD54	Practical Training		5	5		10
HA00BU51	Practical Training 2			5	5	10
HA00BU52	Practical Training 3			5	5	10
<b>TEMU21SLTI-1018 Thesis</b>						<b>15</b>
AO00BU53	Thesis planning				5	5
AO00BU54	Thesis research and writing				5	5
AO00BU55	Thesis publication				5	5

## **TEMU21SLTI-1001 Common studies: 15 ECTS**

### **AY00BU47 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 careerpath 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

### **AY00BU48 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

## **AY00BU49 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

## **A300CJ89 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**

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.

## **TEMU21SLTI-1002 Professional Core Competence: 90 ECTS**

## **TEMU21SLTI-1019 Foundation Studies in Fine Arts: 15 ECTS**

### **AM00CE41 Art History: 5 ECTS**

#### **Learning outcomes**

Students are able to

- describe the basics of Western visual arts, architecture and other visual culture, from prehistory to modern times
- use the research concepts of art history and visual culture
- view their professional field as part of artistic practice and the visual environment
- use their knowledge of phenomena in art history in their professional development and work.

### **AM00CF73 Color, Form and Composition: 5 ECTS**

#### **Learning outcomes**

Students are be able to

- use visual exercises to express colour theory and interrelations and also composition theory
- verbally describe the impressive, expressive and symbolic nature of colours and colour combinations, geometric forms and composition elements
- creatively apply the rules of colour interaction, forms and composition
- discuss the classical colour theories, composition theory and their application in fine arts and design.

### **AM00BV66 Visual Design: 5 ECTS**

#### **Learning outcomes**

The student is able to

- present their work to peer audiences and evaluate them critically

- make use of various visual idea generation methods
- use personal observations and emotions as a starting point for creative thinking
- make connections between visual arts and other forms of visual culture
- analyse, interpret and explain contemporary visual culture.

## **TEMU21SLTI-1021 Basic Studies in Design: 30 ECTS**

### **AM00BW57 Workshop license: 5 ECTS**

#### **Learning outcomes**

The student is able to

- use the workshops in a safe manner, follow rules and instructions and justify her/his actions with given instructions
- with guidance use the most common tools and devices as well as techniques in the workshop
- manufacture the given assignments under supervision.

### **AM00CE47 Visual Design Tools: 5 ECTS**

#### **Learning outcomes**

The student is able to

- use the basic terms and concepts of digital tools in discussion
- use the basic functions in typical digital tools of visual design in their field of study
- utilize visual design tools to carry out assignments
- find guides and information about the use of more advanced tools in design software.

### **AM00CH64 Presentation Methods: 5 ECTS**

#### **Learning outcomes**

The student is able to

- create a visual presentation of a design
- facilitate discussion by drawing
- create finalized presentation materials and work drawings
- explain the possibilities and restrictions of both hand drawn and digital presentation methods.

### **AM00CF02 Introduction to Design: 5 ECTS**

#### **Learning outcomes**

The student is able to

- explain the term design and describe how design affects the development of everyday life, society and businesses
- make use of design thinking and some of the typical design process and methods for solving problems.

### **AM00BW40 Ergonomics and Accessibility: 5 ECTS**

#### **Learning outcomes**

The student is able to

- apply the basics of ergonomics in their design work
- apply the principles of accessibility and design-for-all in their design work

### **AM00CF03 Basics of Service Design: 5 ECTS**

#### **Learning outcomes**

The student is able to

- use service design terminology, methods and processes in design work
- function as a member of a multidisciplinary team in a goal-oriented way
- apply design thinking to assignments and problem solving
- recognize the importance of foresight in service design
- produce visual presentations of services.

### **TEMU21SLTI-1023 Basic Studies in Industrial Design: 15 ECTS**

### **AM00CF04 Advanced Prototyping: 5 ECTS**

#### **Learning outcomes**

Students are be able to

- compare and choose materials for a model
- demonstrate a command of three-dimensional sketching
- independently use appropriate modelling tools and equipment in an assignment.

### **AM00CM66 Working in CAD: 5 ECTS**

#### **Learning outcomes**

The student is able to

- perform basic workflows using industry standard CAD software and is able to use basic terminology of CAD work
- independently use CAD software as a design tool
- create work drawings using CAD software.

### **AM00BW38 Structures and Materials: 5 ECTS**

#### **Learning outcomes**

The student knows how to

- describe the basic principles of designing structures
- assess materials from the perspectives of durability, serviceability, aesthetics and product costs
- design functional structures and select appropriate materials for a design

### **TEMU21SLTI-1024 Core Studies in Industrial Design: 20 ECTS**

### **AM00CM43 CAD, 3D and visualization: 5 ECTS**

#### **Learning outcomes**

The student is able to

- perform basic 3D-modelling and visualisation workflows using CAD software and is able to use the terminology of 3D-modelling
- apply previously learned CAD skills in more advanced CAD assignments and 3D-modelling
- compare different modelling techniques and formats.

### **AM00CF00 Usability, User Interfaces and Interaction Design: 5 ECTS**

#### **Learning outcomes**

The students are able to

- use knowledge of usability psychology and best practices in their design work
- choose, design and implement interactivity in a context savvy way
- recognize common interaction styles and patterns in graphical user interfaces and platforms
- analyze interaction design and explain design choices orally, literally and visually
- utilize user information in design.

### **AM00CF07 Marketing and branding: 5 ECTS**

#### **Learning outcomes**

The student is able to

- explain the concept, contents and characteristics of marketing thought
- use the methods of marketing communication and branding in their professional activity
- draw up a marketing plan
- select appropriate methods and channels for marketing communication and branding

### **AM00CF06 VR/XR/AR for Design: 5 ECTS**

#### **Learning outcomes**

The students are able to

- define the concepts of VR (Virtual Reality), XR (eXtended Reality) and AR (Augmented Reality) and to discuss the application possibilities of these and other comparable technologies
- to design solutions in which XR/AR technologies and methods support user experience, learning, marketing communication or other customer needs.

### **TEMU21SLTI-1022 Creative Professional: 10 ECTS**

### **AM00CD93 A More Sustainable Life – International project: 5 ECTS**

#### **Learning outcomes**

The student is able to

- work in her or his respective professional role within an international team
- communicate professionally in an international setting
- take the various aspects of sustainability into account in their professional work.

### **AM00CE55 Business Skills and Professional Practices: 5 ECTS**

### **Learning outcomes**

The student is able to

- identify entrepreneurial competence requirements and evaluate their personal competencies
- identify and assess opportunities and plan a business operation in the business environment of their chosen field
- identify common contract types, legislation and practices specific to their chosen field
- take into account copyright law and intellectual property rights in their work.

## **TEMU21SLTI-1012 Complementary Competence: 90 ECTS**

### **Courses included in the study module**

Each studio is a 20 credit course. First studio-course listed for each semester is the default choice in the student's programme. Alternative studio-course choices are also listed and can replace the default choice depending on the study path of the student. Please consult your tutor teacher about alternative studio-courses.

## **TEMU21SLTI-1030 Studio 1: 20 ECTS**

### **AM00CM60 Sustainable Design Studio: 20 ECTS**

#### **Learning outcomes**

This studio course includes the following parts and their respective learning goals:

#### Sustainable Design Theory (5 ECTS)

The student is able to

- describe the principles and opportunities of environmental and ethical thinking in design
- acquire information about product life cycles, materials, manufacturing methods, legislation and eco-efficient technologies and practices
- describe eco-efficient product development strategies.

#### Sustainable Design Workshop (15 ECTS)

The student is able to

- design products with consideration of life cycles, materials, manufacturing methods, legislation and eco-efficient technologies and practices
- use systemic thinking and understands the basics of innovation ecosystems
- use eco-efficient product development strategies.

## **TEMU21SLTI-1026 Studio 2: 20 ECTS**

### **AM00CM79 Product Design Studio: 20 ECTS**

#### **Learning outcomes**

The student is able to

- use industrial design and innovation methods in an appropriate way
- analyze an assignment and work towards it's goals and limitations
- produce design solutions solving the assignment's challenges



- apply multiple product development processes and methods
- produce prototypes as a part of design work
- work as a part of a multidisciplinary team
- create necessary documentation and present the designed product for a client.

### **TEMU21SLTI-1027 Studio 3: 20 ECTS**

### **AM00CM78 Product Development Studio: 20 ECTS**

#### **Learning outcomes**

The student is able to

- understand different approaches to the product development process
- recognize the role of innovations and foresight as a part of the product development process
- design within the limitations of manufacturing and understands the relationship between design and production
- understand the basics of manufacturing supply chains and subcontracting
- use foresight and create innovations in the product development process
- apply mainstream materials and methods of manufacture in their design work
- work in their own professional role within a multidisciplinary team.

### **TEMU21SLTI-1028 Studio 4: 20 ECTS**

### **AM00CM67 Intelligent Mobility Studio: 20 ECTS**

#### **Learning outcomes**

The student is able to

- design solutions for the needs of personal and public mobility
- present their concepts and designs both visually and by prototyping
- take a systemic approach to mobility solutions and design solutions that take sustainability and regulatory issues into account.

### **TEMU21SLTI-1029 Elective Studies: 10 ECTS**

### **TEMU21SLTI-1017 Practical Training: 30 ECTS**

### **HA00CD54 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

## **HA00BU51 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

## **HA00BU52 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

## **TEMU21SLTI-1018 Thesis: 15 ECTS**

## **AO00BU53 Thesis planning: 5 ECTS**

### **Learning outcomes**

The student can

- 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

## **AO00BU54 Thesis research and writing: 5 ECTS**

### **Learning outcomes**

The student can

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

## **AO00BU55 Thesis publication: 5 ECTS**

### **Learning outcomes**

The student can

- 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.