

## Curriculum at LAB University of Applied Sciences 2020-2021

### Master of Engineering, Urban Sustainability, Lahti

Code	Name	1 y	ECTS total
<b>YKKY20SLTI-1003 Core competence</b>			<b>20</b>
<b>YKKY20SLTI-1014 Urban Environment</b>			<b>10</b>
TE00BC03	Urban Development and Interaction	5	5
LA00BQ20	Managing urban change	5	5
<b>YKKY20SLTI-1015 Smart City Structures</b>			<b>10</b>
TE00BC06	GIS as a Tool	5	5
TE00BC04	Climate Change and Its Environmental Impacts	5	5
<b>YKKY20SLTI-1004 Complementary competence</b>			<b>20</b>
<b>YKKY20SLTI-1005 Thesis</b>			<b>30</b>
YO00BU70	Thesis Planning	10	10
YO00BU71	Thesis Project and Reporting	20	20

#### **YKKY20SLTI-1003 Core competence: 20 ECTS**

#### **YKKY20SLTI-1014 Urban Environment: 10 ECTS**

#### **TE00BC03 Urban Development and Interaction: 5 ECTS**

##### **Learning outcomes**

The student is able to

- analyze and discuss contemporary phenomena like urbanization and urban sprawl, transitions in urban areas, and collaboration of professionals and stakeholders
- evaluate recent development and planning processes, their management and arrangement of participation in the processes
- reflect on environmental issues from a professional point of view
- develop practical applications based on a theoretical background

#### **LA00BQ20 Managing urban change: 5 ECTS**

##### **Learning outcomes**

The student

- is able to demonstrate the importance and influence of political and administrative systems to change management
- is able to evaluate the context for change and design appropriate strategies to aid its management in practice
- is able to demonstrate reflection on the emerging role of the urban professional as an 'agent of

change' and their own personal development requirements

## **YKKY20SLTI-1015 Smart City Structures: 10 ECTS**

### **TE00BC06 GIS as a Tool: 5 ECTS**

#### **Learning outcomes**

The student is able to

- seek information in GIS related topics and use the terms and concepts consistently
- explain principles behind production of GIS information and the role of satellite positioning in data collection
- seek connections using geographic information with a program connected to GIS use and production
- use and combine GIS-based information for different needs and situations
- evaluate on and discuss the development of his/her knowledge base and abilities to use GIS in working life

### **TE00BC04 Climate Change and Its Environmental Impacts: 5 ECTS**

#### **Learning outcomes**

The student is able to

- evaluate the effect of the EU objectives on reduction of carbon emissions in the future and to analyze their consequences
- describe current and future opportunities for climate change mitigation in urban settings
- search for information and scientific research results concerning climate change
- develop innovations and applications to mitigate the impacts of climate change in urban settings

## **YKKY20SLTI-1004 Complementary competence: 20 ECTS**

### **YKKY20SLTI-1005 Thesis: 30 ECTS**

### **YO00BU70 Thesis Planning: 10 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.

### **YO00BU71 Thesis Project and Reporting: 20 ECTS**

#### **Learning outcomes**

The student is able to

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

- as a maturity test, write a blog post, a press release or an article.