11.10.2023

Curriculum at LAB University of Applied Sciences
2023-2024

Master of Engineering, Urban Sustainability 24K, online studies

Code	Name	1 y	2 y	ECTS total
TLTIYKKY24KV-1001	**Core competence**			**20**
TLTIYKKY24KV-1002	**Urban Environment**			**10**
TE00BC03	Urban Development and Interaction	5		5
LA00BQ20	Managing Urban Change	5		5
TLTIYKKY24KV-1003	**Environmental Change and RDI**			**10**
TE00BC04	Climate Change and Its Environmental Impacts	5		5
TE00CG66	Research on Sustainable Communities	5		5
TLTIYKKY24KV-1004	**Complementary competence**			**10**
TE00BC06	GIS as a Tool	5		5
LA00BO74	Circular economy	5		5
LA00BO75	History and preservation of urban areas	5		5
TLTIYKKY24KV-1005	**Thesis**			**30**
YO00BU70	Thesis Planning	10		10
YO00BU71	Thesis Project and Reporting		20	20

TLTIYKKY24KV-1001 Core competence: 20 ECTS

TLTIYKKY24KV-1002 Urban Environment: 10 ECTS

TE00BC03 Urban Development and Interaction: 5 ECTS

Learning outcomes
The student is able to
- analyze and discuss contemporary phenomenons 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 urban change management
- evaluate the context for change and design appropriate strategies to aid its management in practice
- demonstrate reflection on the emerging role of the urban professional as an 'agent of change' and their own personal development requirements

TLTIYKKY24KV-1003 Environmental Change and RDI: 10 ECTS

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

TE00CG66 Research on Sustainable Communities: 5 ECTS

Learning outcomes
Student
- is able to describe the different characteristics of a sustainable society and learns to search for and critically evaluate related professional and scientific source material
- gets acquainted with the research and development methods applied in the subject area and practices their use
- understands the requirements of the content required for the thesis and prepares the research plan of the thesis

TLTIYKKY24KV-1004 Complementary competence: 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

LA00BO74 Circular economy: 5 ECTS

Learning outcomes
The student
- is able to describe the main principles of circular economy and identifyies the importance of resource efficiency as a part of the concept of circular economy
- is able to demonstrate the life cycle analysis and its principles
- is able to evaluate the environmental impacts of products and processes during their life cycle and develops opportunities to decrease them
- is able to analyse and identify means to improve material and energy efficiency in different environments and urban areas

LA00BO75 History and preservation of urban areas: 5 ECTS

Learning outcomes
The student is able to
- understand the main features about the history of the cities
- identify and define different values in urban built environment as well as means to preserve them
- understand important international treaties and national legislation protecting valuable environments as well as the meaning of international organisations in preservation
- present case examples to demonstrate the variability of built heritage and means to preserve it (for example town planning, local participation of civil society, renovation)

TLTIYKKY24KV-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.