Curriculum at LAB University of Applied Sciences
2021-2022

Master of Engineering, Urban Sustainability 21S, Lahti

Code	Name	1 y	ECTS total
YKKY21SLTI-1001	**Core competence**		**20**
YKKY21SLTI-1002	**Urban Environment**		**10**
TE00BC03	Urban Development and Interaction	5	5
LA00BQ20	Managing urban change	5	5
YKKY21SLTI-1003	**Environmental Change and RDI**		**10**
TE00BC04	Climate Change and Its Environmental Impacts	5	5
TE00CG66	Research on Sustainable Communities	5	5
YKKY21SLTI-1004	**Complementary competence**		**10**
TE00BC06	GIS as a Tool	5	5
YKKY21SLTI-1005	**Thesis**		**30**
YO00BU70	Thesis Planning	10	10
YO00BU71	Thesis Project and Reporting	20	20

YKKY21SLTI-1001 Core competence: 20 ECTS

YKKY21SLTI-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 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

YKKY21SLTI-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

YKKY21SLTI-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

YKKY21SLTI-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.