

Curriculum at Lahti University of Applied Sciences 2019-2020

Master of Engineering, Urban Sustainability

The education is carried out together with Master's Degree Programme Urban Sustainability. All the lectures and common guidance are presented in English. Individual guidance and learning assignments as well as thesis are available in Finnish. Participation of the education requires adequate English skills.

Code	Name	1 y	ECTS total
TEYKKY19K-1000 CORE COMPETENCE			50
TEYKKY19K-1001 Advanced Professional Studies			20
TEYKKY19K-1002 Urban Environment			10
TE00BC03	Urban Development and Interaction	5	5
LA00BQ20	Managing sustainable change	5	5
TEYKKY19K-1003 Smart City Structures			10
TE00BC06	GIS as a Tool	5	5
TE00BC04	Climate Change and Its Environmental Impacts	5	5
TEYKKY19K-1004 Thesis			30
LA00BF06	Thesis		0
TEYKKY19K-1005 COMPLEMENTARY COMPETENCE			0

TEYKKY19K-1000 CORE COMPETENCE: 50 ECTS

TEYKKY19K-1001 Advanced Professional Studies: 20 ECTS

TEYKKY19K-1002 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 sustainable 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

TEYKKY19K-1003 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

TEYKKY19K-1004 Thesis: 30 ECTS

LA00BF06 Thesis: 30 ECTS

Learning outcomes

The student is able to

- generate new knowledge and renew ways of working combining competencies from various sectors
- manage research, development and innovation projects and apply research and development methods
- utilise the research data in operational management and development
- critically analyse, reflect on and combine different approaches to operational development

TEYKKY19K-1005 COMPLEMENTARY COMPETENCE: 10 ECTS

Courses included in the study module

You can find Complementary competence courses from separate "Complementary competence courses taught in English, Master's Degree, 18S-" Curriculum.