

Course Syllabus

Urban Planning and IT 7.5 Credits*, First Cycle

Learning Outcomes

The overall aim of the course is for students to acquire knowledge about the importance of IT and digitalisation and their use in urban planning and urban development.

After completing the course, students will be able to:

- explain current discourse and knowledge development relating to digitalisation, IT and smart cities as well as how these are used in, and affect, urban planning and urban development
- demonstrate a basic understanding of relational databases and programming languages linked to applications in urban planning
- apply basic principles for relational databases, including basic concept modeling for database design
- manage data and create, modify and delete database objects using SQL
- critically discuss the consequences for urban planning and urban development as a result of the integration of IT, digital solutions and discourses about smart cities in urban planning

Course Content

The course describes the importance and impact of IT and digitalisation on urban and societal development and how they are applied in urban planning in different situations. The concept of smart cities, as well as critical perspectives on the application of this concept, is introduced.

The course introduces the database concept, systems theory, basic design principles for relational databases and the Personal Data Act. It also includes a method for developing database systems. The course also deals with knowledge of how and why databases are used in companies, by authorities and in organisations.

The course is divided into three blocks – a practical block that introduces databases, relational databases and systems theory through exercises and an exam; a theoretical block with seminars on relevant literature; and a block with a project assignment that connects IT and the smart city concept to physical planning and urban development.

Assessment

Exam 1 credit
Seminars 2 credits
Exercises 2 credits
Project assignment 2.5 credits

Forms of Study

Literature studies, seminars, exercises, project work

Grades

The Swedish grades U–VG.

Exam and exercises, U-G.Seminars and project assignment, U-VG.

Prerequisites

60 credits in the Construction and Urban Planning Programme

Subject:

Civil Planning and Construction

Group of Subjects:

Civil and Environmental Engineering

Disciplinary Domain:

Social Science, 25%

Technology, 75%

This course can be included in the following main field(s) of study:

1. Civil Planning and Construction

Progression Indicator within (each) main field of study:

1. G2F

Approved:

Approved 17 December 2020

Valid from 2 March 2021