

COURSE SYLLABUS

Urban Space Design with GIS, 7.5 credits

Samhällsplanering med GIS, 7.5 högskolepoäng

Course Code:	TSGK16	Education Cycle:	First-cycle level
Confirmed:	Feb 01, 2025	Disciplinary domain:	Technology
Revised:	Oct 29, 2025	Subject group:	Building Technology
Valid From:	Jan 19, 2026	Specialised in:	G1F First cycle, has less than 60 credits in first-cycle course/s as entry requirements
		Main field of study:	Civil Engineering

Intended Learning Outcomes (ILO)

On completion of the course the student shall:

Knowledge and understanding

- demonstrate knowledge of the development of urban planning and public spaces from a historical perspective.
- demonstrate knowledge of fundamental concepts and theories within urban planning.
- demonstrate knowledge of various methods for geographic analysis.
- demonstrate an understanding of the factors influencing urban planning from a technical, social, economic, and ecological perspective.

Skills and abilities

- demonstrate proficiency in spatial analysis using GIS tools.
- demonstrate the ability to analyze the city as a living space and apply this knowledge in a design project.

Judgement and approach

- demonstrate the ability to assess and critically evaluate the reliability and usability of GIS analyses.
- demonstrate the ability to identify, analyze, and assess factors that influence the design of public spaces and contribute to long-term sustainable development.

Content

The course includes the planning and design of public spaces from technical and qualitative aspects, considering applicable norms and legislation.

The course includes the following elements:

- Urban development from a holistic perspective.
- Fundamental scientific theories and concepts.
- Actors, perspectives, and factors that influence the design of public spaces.
- Sustainability issues impacting design and urban development.
- Analytical methods as a basis for the design and planning of cities.
- Sketch and presentation methodology
- Geographical data and analysis
- Cartographic presentation

Type of instruction

Lectures, exercises and study visits.

Language of instruction is in Swedish or English.

Entry requirements

General entry requirements and taken course Sustainable Built Environment, 7.5 credits (or equivalent).

Examination and grades

The course is graded 5, 4, 3 or U.

The final grade for the course is based upon a balanced set of assessments. The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Assignment 1. Analysis	2.5 credits	5/4/3/U
Assignment 2. Design	2.5 credits	5/4/3/U
Assignment 3. Theory	2.5 credits	5/4/3/U

Course literature

Please note that changes may be made to the reading list up until eight weeks before the start of the course.

Harrie L. (red). Geografiska informationsbehandling, Teori, Metoder och Tillämpningar

Jan Gehl: Cities for people. Island Press, 2010

ISBN: 9781597265737 (available as e-book at the library)

Matthew Carmona, Steven Tiesdell: Urban Design Reader Elsevier Science 2007

ISBN: 9780080468129 (available as e-book at the library)