AG2141 Urban Infrastructure 7.5 credits

Urban Infrastructure

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for AG2141 valid from Spring 2022

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

3 years of university studies within the field of Planning, Architecture, Engineering or Social Science.

For independent applicants: 150 credits including 30 credits in Architecture, Planning or Civil Engineering and English B.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The aim of the course is to provide basic knowledge on the functions, dynamics and interactions of urban infrastructure systems. After fulfilling the course requirements students should:

- Be conversant in a range of theories addressing technology, society, and urban development;
- Recognise and appreciate the relational and spatial aspects of urban infrastructure development; and
- Have the ability to apply analytical skills to critically assess infrastructure networks in terms of sustainability, liveability, and resilience.

Course contents

Contemporary cities are supported by a diverse range of infrastructure networks including energy, water, wastewater, transportation, and communications. These networks are traditionally defined by their technical and economic characteristics but they also have significant (and often unappreciated) spatial, political, and cultural implications. Today, the upgrading and reimagining of infrastructure services is central to notions of sustainability, resilience, economic prosperity, and improved quality of life.

This course provides an opportunity for students to study the co-evolution of technology and cities using theories and case studies from urban history, science & technology studies, urban geography, planning, and architecture. The course explores historical and theoretical ideas about cities and infrastructure as well as contemporary issues that address infrastructure trends and debates. The course also provides students with the opportunity to develop research skills to study infrastructure networks. The knowledge and skills taught in this course will allow students to develop a critical perspective on technology and society as it relates to cities of the past, present, and future.

The course consists of lectures, literature seminars and group work in which students will prepare a paper and presentation on a relevant topic

Examination

- ÖVN1 - Exercises/Excursions, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Written examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- DELN - Participation, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

- NA¨R1 - Lectures, 1,5 credits, grade scale: P, F
- TEN1 - Examination, 3,0 credits, grade scale: A, B, C, D, E, FX, F
- O¨VN1 - Exercises/Excursions, 3,0 credits, grade scale: A, B, C, D, E, FX, F

Other requirements for final grade

To receive a passing grade, students need to:

- Attend 75 percent of the lectures and participate in the literature seminar and the study visit (1,5 credits)
- Participate in and contribute to the group work that involves the writing and presentation of a paper (3 credits)
- Pass the written exam (3 credits)

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.