



AG1421 Real Estate Information Technology 7.5 credits

Fastighetsinformationsteknik

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

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

Establishment

The course syllabus is valid from Spring 2025 according to decision of the Director of First and Second Cycle Education: 2024-1943 3.2.2 Decision date: 2024-09-25

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Knowledge in mathematics 3,0 credits corresponding to the completed part INL1 (assignment 3,0 credits) in course AI1178 Applied Mathematics and Statistics for Economists 6 credits.

Language of instruction

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

Intended learning outcomes

After the course, the students should:

- Have acquired an understanding of how the national real estate database is structured. This includes both the logical structure as well as economical and legal aspects on the managing of real estate information.
- Be able to use information from the real estate database in different analyses. This also includes an ability to evaluate the quality of the information retrieved from the database.
- Have acquired an understanding of basic principles and methods in GIS, such as raster and vector data structures, and be able to search for information in databases and perform basic analyses.
- Be able to perform market analyses, real estate valuation and credit assessment, using the support of GIS.
- Have acquired an insight in how real estate information is managed in other countries.

Course contents

The course consists of three main parts: Basic knowledge about GIS, the structure and use of the national real estate database, and different types of analyses where information from the real estate database are used in GIS to perform market analyses, real estate valuation and credit assessment.

Topics covered in the first part of course are: raster- and vector data structures, expansion of the relational database structure to also handle geographical information, map projections, geographical reference systems and basic analyses in GIS.

The second part of the course will cover different ways to model real estate information with focus on the national real estate database, and different standards for managing real estate information. Furthermore, legal and economical aspects of developing and managing a real estate database will also be covered.

In the third and last part of the course, GIS will be used as a support tool in performing market analyses, real estate valuation and credit assessment.

The course will focus on Swedish conditions but will also give some insights in how real estate information is managed in other countries.

Examination

- LAB2 - Laboratory Work, 3.0 credits, grading scale: P, F
- PRO1 - Project, 1.5 credits, grading scale: P, F
- TEN2 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, 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.

Other requirements for final grade

Written exam (TEN2; 3 cr)

Laboratory work, (LAB2; 3 cr)

Project (PRO1; 1,5 cr)

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.