AG2412 Geovisualisation 7.5 credits

Geovisualisation

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

Course syllabus for AG2412 valid from Autumn 2016

Grading scale

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

Education cycle

Second cycle

Main field of study

Built Environment

Specific prerequisites

For admitted students to the Master of Science in Civil Engineering and Urban Management (CSAMH) or the Master of Science in Transport and Geoinformation Technology (TTGTM), there are no additional requirements.

For other students:

- A completed bachelor's degree in civil engineering, urban planning, geomatics, geography, engineering physics, computer science, statistics, economics, and/or mathematics
- At least one course on GIS or a relevant subject
- Documented proficiency in English corresponding to English B

Language of instruction

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

Intended learning outcomes

The major objective of this course is to learn principles of cartography and techniques for effective visualization of geographic data. On the completion of this course, students should be able to design analogue and digital cartographic products using an existing geographic information system, and to gain critical thinking skills essential to avoid being misled by cartographic products.

Course contents

- Map symbols
- Visual variables: spacing, size, orientation, shape, arrangement, height, hue, value, saturation.
- Data classification
- Topographic and thematic map design and symbolization
- Map design for presentation, synthesis, analysis and exploration of spatial data
- Exploratory data analysis, graphical data analysis techniques
- 2D, 2.5D, and 3D data and their representation
- Temporal data and their representation

Disposition

Lectures 20h
Laboration 40h
Written examination

Course literature

Terry A. Slocum, Robert B. McMaster, Fritz C. Kessler, and Hugh H. Howard, 2008, **Thematic Cartography and Geographic Visualization**, 3rd Edition, Prentice Hall.

Examination

- LAB2 - Laboratory Work, 3.0 credits, grading scale: P, F

- PRO2 - Project, 1.5 credits, grading scale: P, F
- TENA - 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 (TEN1; 3,0 cr) (A/B/C/D/E/FX/F)
Approved laboration (LAB1; 3.0 cr) (P/F)
Project (PRO1; 1,5 cr) (P/F)

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.