AG2413 Digital Image Processing and Applications 7.5 credits

Digital bildbehandling och tillämpningar

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

Establishment

Course syllabus for AG2413 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

A completed Bachelor of Science in Engineering or 180 credits academic studies in the field of Technical Science, Environmental Science, or planning and documented proficiency in English corresponding to English B.
Furthermore AG1321 Remote Sensing Technology or AG1324 Phtogrammetry and Remote Sensing or equivalent

Language of instruction

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

Intended learning outcomes

Students will gain theoretical knowledge and practical skills on digital image processing, analysis, and applying these techniques in various remote sensing applications

Course contents

- Remote Sensing & In Situ Data and Image Processing Systems
- Image Processing
- Image Analysis
- Image Classification
- Digital Change Detection
- Remote Sensing Applications

The course is composed of lectures, laboratory exercises, readings and student presentations.

Examination

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

Other requirements for final grade

Written exam (TEN1; 3 cr)
Approved laboratory reports (LAB1; 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.