SK30004  Introduction to Geographic Data, 2.5 credits
Introduktion till geografisk data, 2,5 högskolepoäng

Third-cycle level / Forskarnivå

Confirmation
This syllabus was confirmed by the Department of Political Science on 2020-01-14, and is valid from Spring semester 2020.

Responsible Department
Department of Political Science, Faculty of Social Sciences

Entry requirements
A student who is enrolled in studies at the doctoral level in Political Science is eligible for the course.

Learning outcomes
On successful completion of the course, the third-cycle student is expected to be able to:

Knowledge and understanding
• Understand the various types of coordinate systems used in geographic data.
• Understand the basics of working with geographic data in Python, R, and QGIS.

Competence and skills
• Create detailed, layered maps displaying geographic data in various softwares
• Create geographic datasets of various types (raster, vector, wkt, etc.)
• Perform basic analyses: point in polygon, nearest neighbor, distance measurements
• Perform basic analyses in Python, R, and QGIS

Judgement and approach
• Determine the appropriate coordinate reference system given a particular dataset and task
Course content
This course is intended for graduate students in political science. The course will provide students the theoretical knowledge and practical skills necessary to incorporate geographic data into their research. The topics covered include data creation and formatting, data visualization, basic data analysis, and use of various software.

Types of instruction
Lecture, workshop, supervision, self-study

Language of instruction
The course is given in English.

Grades
The grade Pass (G) or Fail (U) is given in this course.

Types of assessment
Students will be assessed by a final course project covering a dataset of their choice. The project will consist of a report where students will describe what they hope to learn from their data, what approach they took to learn this information, and the key findings. Additionally the report must contain at least four maps created in at least two different softwares.

Course evaluation
The students will be given the opportunity to do a course evaluation via an anonymous online survey. A summary of the course evaluations will be shared with the students who participated in the course.