

# Automate your GIS - Scripting in Python

Third-cycle level | 5.0 credits | 3-7 May “class room” teaching, 27 May project hand-in and seminar

A geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present spatial or geographic data. Where most of the geoscientific research activities include a spatial component, knowledge and skills on how to effectively process and analyses this kind of information is essential to be a successful researcher.

Department of Earth Sciences at University of Gothenburg gives a third cycle course on the concept of using basic programming and scripting to process, analyses and visualize spatial processes. The aim of this course is to acquire programming skills and concepts on how to perform auto-mated processing within a GIS.



## What will you learn?

- Basic Python programming
- Fully integrated Open Source GIS scripting environment
- Examples on how to integrate proprietary GIS software in automated GIS processes
- Set up a GIS programming environment based on your own research problem

This is an off-campus course. This requires that you have your own computer. The course is based on Windows 10. Other operating systems such as Linux and iOS is not recommend. This course will prepare you for the upcoming course in big data handling given by the Department of Earth Sciences later this year.

**Recommended prerequisites:** Basic GIS skills (Chapter 1-12 in [QGIS Training manual](#)). No programming prerequisites needed.

Apply here: <https://fubasdoc.gu.se/fubasextern/info?kurs=NGEO306>

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