

**SYLLABUS**

# **Open source web mapping solutions 7.5 credits**

## **L0019B**

**Kartapplikationer på Internet med open source**

**Course syllabus admitted: Autumn 2023 Sp 1 - Present**

**DECISION DATE**  
**2021-06-14**

# Open source web mapping solutions 7.5 credits L0019B

## Kartapplikationer på Internet med open source

### First cycle, L0019B

| Education level | Grade scale | Subject                          | Subject group (SCB)                             |
|-----------------|-------------|----------------------------------|---|
| First cycle     | U G#        | Geografisk informationsteknologi | Geographic Information Technology and Surveying |

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language

## Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

## Course Aim

After approved course the student

- shall be able to work with and publish geographic data online through different interactive web mapping solutions,
- shall be able to design and add functionality to these published web mapping solutions
- has obtained a deepened understanding to how these web mapping solutions work and interact, using different services and type of data with focus on practical application.

## Contents

-Basic concepts:

Definitions, historic background, market, different technology, communication, protocol etc.

Architecture, design, development and administration of different types of web mapping software, mostly opens source.

Technology / programs:

- Google Maps API
- Web Map Service, Web Feature Service, Web Coverage Service
- Geoserver
- Openlayers
- Leaflet
- Open Street Maps

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

All the course material and software can be found on LTU's Citrix portal. There you can also find more detailed descriptions of the course contents and its realization. There are no pre-recorded lectures, nor are there any mandatory gatherings. Lectures are given in text format.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. The course aim is examined through assignments that will be completed individually which will be examined throughout the course. Marking of the assignments will be made according to U/G marking scale. All assignments should be completed to receive a final mark. Assignments are available on LTU's Citrix portal.

## Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term “unauthorized aids” refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

## Course offered by

Department of Civil, Environmental and Natural Resources Engineering

## Modules

| Code | Description  | Grade scale | Cr  | Status    | From period | Title |
|------|--------------|-------------|-----|-----------|-------------|-------|
| 0001 | Assignment   | U G#        | 4.5 | Mandatory | A11         |       |
| 0002 | Project work | U G#        | 3   | Mandatory | A11         |       |

## Last revised

by Assistant Director of Undergraduate Studies Eva Gunneriusson, Department of Civil, Environmental and Natural Resources Engineering 2021-06-14

## Syllabus established

by Department of Civil, Environmental and Natural Resources Engineering 2011-02-08