

**SYLLABUS**

# **Geographic Information Technology 7.5 credits L0001B**

**Geografisk informationsteknik**

**Course syllabus admitted: Autumn 2012 Sp 1 - Present**

**DECISION DATE  
2012-03-14**

# Geographic Information Technology 7.5 credits L0001B

## Geografisk informationsteknik

### First cycle, L0001B

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Geografisk informationsteknologi	Geographic Informations 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.

## Examiner

Folke Stridsman

## Course Aim

The aim of the course is to give the students ability, with geographical technology, to collect, store, analyse and visualize geographical data.

Further more the students shall be familiar with concepts, terms and the most common operations in the subject field. Students shall also know something about what is included in the initiation of the technology in organizations.

## Contents

- Basic concepts:  
Definitions, history, application area, market.
- Data capture:  
Surveying, GPS, photogrammetry, remote sensing, manual digitizing, scanning, digital elevation model
- Data modeling:  
Conceptual modeling, data structures.
- Geographic analysis:  
Topology, vector analysis, network analysis, raster analysis, DEM.
- Initiation of GIS in organizations:  
Information analysis, economy.
- Applications.

## Realization

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

Lectures and laboratory work. No compulsory lectures.

## 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. Written examination and approved laboratory work.

## Remarks

Courses followed through Internet demands access to some sort of broadband

## Overlap

The course L0001B is equal to L0020B, ABL001

## Literature. Valid from Autumn 2010 Sp 1

Lars Harrie (red), senaste upplagan, Geografisk Informationsbehandling – Teori, metoder och tillämpningar. Förlag: Forskningsrådet Formas. ISBN: 978-91-540-6015-3. Utgiven av ULI (ULI - Utvecklingsrådet för landskapsinformation), GIS-centrum, Lunds Universitet och forskningsrådet Formas.

## Course offered by

Department of Civil, Environmental and Natural Resources Engineering

## Items/credits

Number	Type	Credits	Grade
0001	Take home exam	3.8	G U 3 4 5
0002	Assignment reports	3.7	U G#

## Last revised

by Eva Gunneriusson 2012-03-14

## Syllabus established

by Department of Civil and Environmental Engineering 2007-01-31