



HÖGSKOLAN I GÄVLE

Remote Sensing and GIS Analysis 7.5 cr

Fjärr- och GIS-analys 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at

Valid from

2/27/19

HT2019

Level	G1F
Education level	First cycle
Course identifier	SBG553
Credits	7.5 cr
Main field of study	Spatial Planning, Geospatial Information Science, Geomatics, Geography, Surveying Technology
Subject group	Geographic Information Technology and Surveying
Disciplinary domain	Technology 100.0 %

Learning outcomes

After completion of the course, the student should be able to

1. combine data from different sources
2. demonstrate an understanding of analysis methods in remote sensing and GIS
3. classify satellite images
4. demonstrate an understanding of the characteristics between different interpolation methods and the resulting outcome
5. apply different interpolation methods to produce digital elevation models
6. analyse data with multicriteria techniques
7. summarise and evaluate scientific literature
8. carry out a project work.

Course content

Basics of electromagnetic radiation
Properties of satellite images
Satellite image manipulation and interpretation
Unsupervised and supervised classification of satellite images
Interpolation methods for spatial data
Digital elevation modeling
Basic hydrological modeling in GIS

	Spatial multicriteria analysis Remote sensing and GIS within the field of land management		
Teaching	Lectures, assignments, seminars, project.		
Prerequisites	GIS Raster/Vector 7,5 credits, GIT in Land Management 7,5 credits or equivalent		
Examination	Written exam, Assignments and Project work.		
Grade	A, B, C, D, E, Fx, F		
Other regulations	Degree Criteria for final grade will be handed out by the course responsible or examiner latest at the beginning of the course.		
Sustainable environment	A minor part of the course content deals with sustainable development.		
Module			
	0010	Written exam	2.5 cr Grade: AF
	0020	Assignments	2 cr Grade: AF
	0030	Project	3 cr Grade: AF