

Period 4 (Apr-May 2008)

## AG2415 Web GIS, 7.5c

This course intends to give students an overview on designing and publication of maps and performing geographic analysis through the internet. The lectures describe the most common techniques and standards for distribution of geographical data via the Internet. The exercises concentrate on methods for creating map services on the Internet by use of web GIS software. The course contains a major individual project where the students set up their own map service on the Internet. The course covers:

- Design of web maps
- Open Source Internet mapping software
- Internet mapping software of different vendors
- Geographic Analysis via the WWW

<http://www.infra.kth.se/courses/AG2415/>

## AG2422 Spatial Planning with GIS, 7.5c

GIS has become an important tool in spatial planning. The course aims to provide students with a thorough understanding of the capabilities of GIS, as well the practical skills to carry out GIS analysis in various planning applications. The following topics are covered: Geographic visualization (designing maps and visualizing 3-D data models), interpolation methods in spatial analysis, multi-criteria evaluation (MCE) (location analysis in land-use planning), error propagation, modeling, network analysis, spatial statistics, and spatial analysis.

<http://www.infra.kth.se/courses/AG2422/>

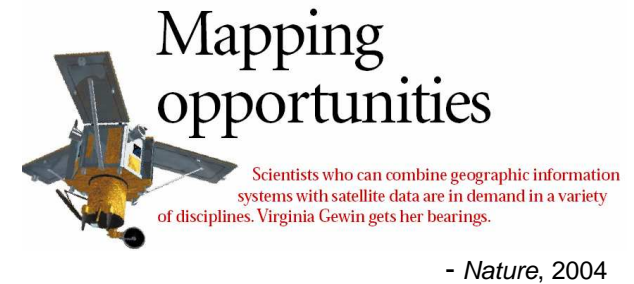
Period 4 (Apr-May 2008)

## AG1323 GIS for the Built Environment, 7.5c

The focus of this course is the application of GIS in various fields related to build environment such as surveying, urban planning, land management and traffic planning. The course covers:

- Visualization, analysis and presentation of geographic information
- how analysis tools in GIS can be used within various applications
- the characteristics of geographical information used in analysis and how to evaluate the reliability of the results
- GIS project planning and management

<http://www.infra.kth.se/courses/AG1323/>



# GIS Courses

Spring Term 2008

Geoinformatics  
Dept. of Urban Planning & Environment  
(Samhällsplanering & miljö)  
KTH  
Drottning Kristinas väg 30



For more information see the homepage of each respective course.

Period 4 (April-May 2008)

## AG2413 Digital image processing and applications, 7.5c

An advanced remote sensing course on sophisticated methods and techniques for collecting, processing and analyzing remotely sensed data; as well as the theory and practice of undertaking a remote sensing project. Throughout the course, emphasis will be placed on image processing, image analysis, image classification, digital change detection, remote sensing and GIS data integration, and applications of remote sensing in land cover mapping, environmental monitoring, resource management and urban planning.

The course is composed of lectures, laboratory exercises, readings and student presentations.

Pre-requisite: AG1321 Remote Sensing Technology

<http://www.infra.kth.se/courses/AG2413/>



Environmental Change Monitoring: Shanghai

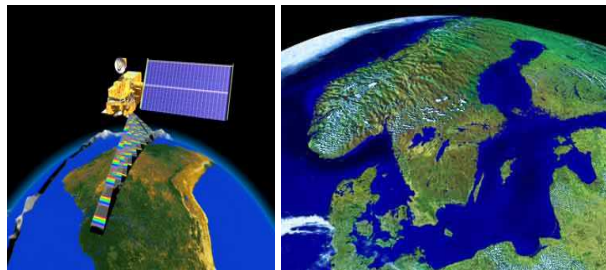
Period 3 (Jan-Mar 2008)

## AG1321 Remote Sensing Technology, 7.5c

This course intends to give students an overview of remote sensing concepts, the ways in which remote sensing systems are used to acquire data, how these data may be analyzed digitally and how the information is used in studies of the natural and human environments. At the end of the course, students should have a good knowledge of the different types of remote sensing imagery that are available and the digital processing and analysis procedures that are used for resource management and environmental applications. Students should also be capable of undertaking basic computer-assisted image analysis.

The course is composed of lectures, laboratories, readings and student presentations.

<http://www.infra.kth.se/courses/AG1321/>



2<sup>nd</sup> Year Courses:

AG1311 Grafiska Informationssystem, 7.5c

AG1421 Fastighetsinformationsteknik, 7.5c

Period 3 (Jan-Mar 2008)

## AG2414 Spatial Analysis, 7.5c

This course presents students with the fundamental concepts and advanced techniques of spatial analysis. GIS and statistical techniques are discussed for managing, analyzing and modeling spatial data. Students will gain practical experience in publicly presenting spatial analysis topics.

The course covers the following topics:

- Cartographic Modeling and Multi-Criteria Evaluation
- Spatial Statistics, Interpolation and Kriging
- Space Syntax and Urban Morphology
- Cellular Automata and Agent-based Modeling
- Geographical Data Mining

The course is composed of lectures, projects and seminars. Each new topic is introduced at a lecture. Associated with each topic are an exercise and a seminar.

<http://www.infra.kth.se/courses/AG2414/>

