



Geos 422 – Geoscience Applications of Remote Sensing

General information:

Title	: Geoscience Applications of Remote Sensing
Level	: Upper Undergraduate
Credits	: Three (3)
Lectures	: Two one-hour-lectures per week
Lab	: One three-hour lab per week
Meets	: Natural science degree requirements with lab
Prerequisites	: GEOS378, PHYS 104X or 212X, or permission of instructor
Instructor	: Anupma Prakash
Delivered	: Every Fall (Please note that the 2003-2004 printed catalog wrongly lists the course as a spring course).
Evaluation	: Grade letters
Web site	: http://www.gi.alaska.edu/~prakash/teaching/geos378/index.html
Important	: This class is not available for 'Audit'

Salient features of the GEOS 422 course:

The course 'Geoscience Applications of Remote Sensing' is tailored for an upper undergraduate audience and is designed to provide a balanced proportion of theoretical lectures and practical hands-on exercises to the students. The course starts with lectures explaining the physical principles underlying remote sensing. This is followed by an equally long session on the concepts and techniques of digital image processing of remote sensing data. The last part of the course is dedicated to presenting a variety of geoscience and environmental applications where remote sensing data are practically used.

Students from other disciplines, who are interested in studying large areas, changes occurring over time, or in handling of digital data, will also find this course very useful. The lab component of the course is computer intensive. The main software package used for image processing is Erdas IMAGINE version 8.7.

Evaluation is based on class participation, home work, quiz, theory exam and successful completion of an individual class project. Students work on this project in parallel with the regular lectures and labs. The assessment of the project work is based on the final report and presentation made by the student.