Full Syllabus

Course Title

0349-2935 Remote sensing in the urban environment

Lecturer

Prof. Alexandra Chudnovsky

Semester

2020/1 Alef

Course requirements

Intro to Geoinformatics A+B,
Intro to remote sensing

Final grade components

Homework/labs- 30%, Final project 70%

Course schedule

| Class no. / Date	Subject and Requirements (assignments, reading materials, tasks, etc.)
21/10/20	Remote sensing- intro to the course, applications Data Collection, high resolution sensors
28/10/20	Principles of electromagnetic radiation and the transfer of radiation into the atmosphere, Thermal imagery
4/11/20	Radiative temperature and Urban heat island effect
11/11/20	Environmental applications of remote sensing- spectral range matters
18/11/20	Urban features that can be sensed- basic definitions
25/11/20	Monitoring vegetation at a regional scale
2/12/20	Spectral transformations: channel ratios, indices, spectrum analysis
9/12/20	Urban air quality
16/12/20	GIS and Remote sensing major data sources- introducing worldwide data library
23/12/20	Spectral classification: supervised and unsupervised. The concept of accuracy estimation
30/12/20	DMSP satellite program
6/1/21	Critical reading of scientific literature- selection of a paper
13/1/21	Temporal analyses

Required course reading

Jensen J.R. (2000) Remote Sensing of the Environment: An Earth Resource Perspective, Prentice Hall.
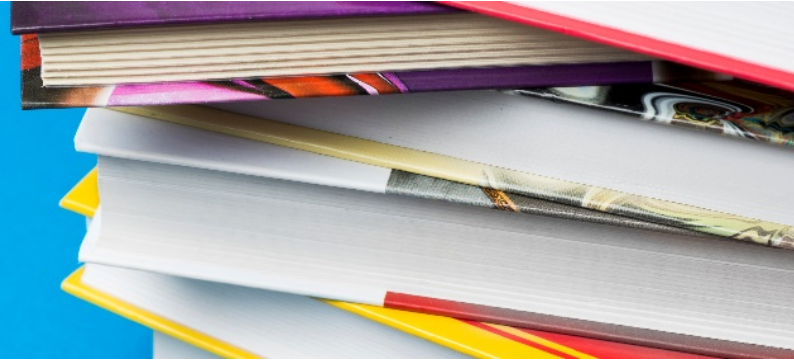
Optional course reading

Comments