REMOTE SENSING - GRADUATE CERTIFICATE

Remote sensing (satellite and ground-based) is increasingly being used as a technique to probe the Earth’s atmosphere, ocean, and land surfaces. Probing of other planets is accomplished largely by satellite remote sensing. Given national priorities in such areas as climate and global change, the interest in remote sensing will only increase with time.

Remote sensing is a relatively new academic subject, with few universities having any sort of an organized curriculum. The purpose of formalizing the CU remote sensing curriculum is to coordinate curricula across campus so that a coherent curriculum in remote sensing can be provided to complement and supplement the students’ regular degree program. An additional purpose is to encourage multi-disciplinary education of the students in the area of remote sensing.

Graduate students, research staff, and faculty work on a wide variety of topics, ranging from the theory of remote sensing, to its application. These applications include: use of satellite remote sensing to determine ocean surface temperature and heat fluxes; use of surface radar to improve the determination of clouds and precipitation from satellite; determination of surface biological characteristics and productivity from satellite; mapping of land use from satellite; mapping of surface landform and topographical features; searching for locations of buried artifacts; use of surface radar to determine upper atmosphere wind motions; and aircraft remote sensing to assess the validity of satellite retrieval algorithms of surface and atmospheric characteristics.

Distance Education

Students can complete the requirements for the Remote Sensing Certificate via distance education (online) through Boulder Connect.

The Remote Sensing Certificate will be awarded based on a written request by the student to the Remote Sensing Graduate Chair, provided that the following requirements have been met:

1. Four courses are required totaling at least 12 credits, with grades of B or better.
2. Two courses from one of the following topical areas:
   a. Data Analysis
   b. Instrumentation and Measurement Techniques
   c. Remote Sensing Theory
3. One course in each of the two remaining topical areas.
4. At least one semester of Remote Sensing Seminar (currently listed as ASEN 5210 and ATOC 7500).