GEOSPATIAL SCIENCE (GSS)

Degree Offered: Graduate Certificate

This program is offered in Durham.

The Graduate Certificate in Geospatial Science (GSS) at the University of New Hampshire is a multidisciplinary program designed to provide graduate level education in the applied and theoretical technology and applications of geospatial science. Students within the program are afforded the opportunity to build their five course certificate from a variety of required and elective classes from different disciplines to best fit their academic, research, or professional interests. The flexibility of this program makes it ideal for a student looking to complement their degree or a professional looking to build knowledge, skill and credentials within the Geospatial Sciences.

Admission Requirements

Students must hold a baccalaureate degree from an accredited college or university. Five courses as chosen from the categories listed below are required. Courses taken at other institutions are not eligible to be transferred into the program.

Applying

Please visit the UNH Graduate School site for detailed instructions about applying to the certificate program.

http://gss.unh.edu/

Programs

- Geospatial Science (Graduate Certificate)

Courses

Geospatial Science (GSS)

GSS 800 - Elements of Geospatial Science
Credits: 4
This on-line course lays the foundation for Geospatial Science (GSS) thinking by exploring the definition, methods, data types, data sources, software, and equipment used within the field of GSS. The importance and structure of the regional GSS industry is discussed with emphasis on how GSS is used across multiple disciplines. Course includes some guest lectures from industry professionals. Lectures and tests are conducted on-line. Students are required to download and install some software and data to complete assignments.
Grade Mode: Letter Grading

GSS 805 - Applied Geographic Information Systems
Credits: 4
This course teaches concepts and applied techniques of Geographic Information System technologies to solve real world Geospatial Science problems across multiple disciplines. Technical topics covered include geospatial data collection, management, analysis, scripting, visualization, and 3D mapping. Student hands-on-lab and independent exercises use the latest version of the world's most popular professional GIS software, ArcGIS Pro. Development and implementation of independent projects are completed by students to forward their professional, academic, or research interests.
Grade Mode: Letter Grading

GSS 827 - Applied Drone Remote Sensing
Credits: 2
Within this course, students will learn concepts and applied methods of Unoccupied Aerial Vehicle (UAV) drone operations for remote sensing across multiple disciplines. Concepts to be covered include the types, costs, and uses of various UAVs and UAV sensor systems for scientific remote sensing. Learned skills will include flight operations, aerial data collection, image registration, data processing, image classification, data analysis, and visualization. Students will utilize class-provided, hands-on UAVs and software to complete daily exercises and labs. Final project reports will be turned in on the last day of class.
Grade Mode: Letter Grading

GSS 996 - Geospatial Science Independent Study
Credits: 1-4
May include research project, fieldwork or a relevant internship where students will build or apply GIS, Remote Sensing, GPS, or other Geospatial technologies. To be elected only with permission of program coordinator and with qualified supervision.
Grade Mode: Letter Grading
Special Fee: Yes