Geospatial Information Science & Technology

The Master of Geospatial Information Science and Technology (MGIST) is a non-thesis, professional degree program that equips students with the necessary knowledge and tools to become high-end geospatial professionals. Graduates lead North Carolina and the nation in both the development of new tools to model and manage spatial phenomena and in the management and application of geospatial technology to a wide array of public, private and nonprofit venues. The curriculum is built on theory, innovation and experiential learning, covering many essential topics from professionalism and ethics, geospatial data science and analytics, to geospatial IT and server deployment.

The MGIST can be completed entirely online, allowing flexibility for both students just entering the workforce and working professionals. The program also admits a small number of on-campus students each year. The schedule, structure, expectations, and rigor of the program are identical, whether you are on campus or in the online program.

Learning Outcomes and Degree Requirements

The Master of Geospatial Information Science and Technology (MGIST) curriculum consists of at least 33 credit hours, 21 of which are required core courses. The additional 12 credit hours are electives and allow the student to focus on related areas of interest to supplement their GIS instruction and professional skills development. As part of the program students will complete an experiential learning Capstone project in partnership with external organizations and develop a Professional Portfolio.

Through a combination of geospatial theory, hands-on applications, and client-based service-learning experiences, students graduate from the program with a solid foundation to provide a wide range of geospatial expertise for local, state, national, and international organizations with competencies in the areas of Geospatial professionalism and ethics, programming and customization, modeling/analytics/geospatial data science, geospatial data structures and management, geospatial web and mobile services, geovisualization, Geospatial IT and server deployment and management, and professional skills. A cumulative GPA of 3.0 or better is required to graduate.

Careers

Graduates of the MGIST program go on to work as geospatial data managers and analysts, energy auditors, mapping technicians, security and defense intelligence analysts, data scientists, cartographers, and more. The job market for individuals with GIS development and analytic skills is excellent and growing. According to the Occupational Outlook from the US Bureau of Labor Statistics, significant job growth is expected, ranging 3–36% above average, for geospatial-oriented jobs. Nationally, this translates into thousands of new geospatial jobs expected each year between 2021 and 2031, particularly in the areas of information and data sciences. In North Carolina, which as of 2021 had the fourth highest level of employment in these areas, growth of 12–29% is expected over the next decade.

Additional Information

The GIS program also offers a Graduate Certificate in GIS (https://online-distance.ncsu.edu/program/graduate-certificate-in-geographic-information-science/) (12 credit hours). Certificate students may transfer up to 12 credits of B or better grades upon application and acceptance into the MGIST program.

More Information

Program Website (https://online-distance.ncsu.edu/program/master-of-geospatial-information-science-and-technology/)

Admissions Requirements

Admission to the program requires an undergraduate GPA of 3.0 or better, a professional resume, a personal statement describing the applicant's professional ambitions and experience, and 3 letters of recommendation. Students with less than a 3.0 undergraduate GPA may be considered for provisional admission into the MGIST or referred to the GIS Certificate program (https://online-distance.ncsu.edu/program/graduate-certificate-in-geographic-information-science/) or non-degree studies (https://nds.registrar.ncsu.edu/) to enhance skills and prepare for reapplication to the MGIST on a case-by-case basis. Prospective students should consult the director of graduate programs.

Applicant Information

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

- **Fall:** April 15 (US); March 1 (Intl)
- **Spring:** October 15 (US); July 15 (Intl)

Degrees

- Geospatial Information Science and Technology (MR) (https://catalog.ncsu.edu/graduate/natural-resources/geospatial-information-science-technology/geospatial-information-science-technology-mr/)
- Geographic Information Systems (Certificate) (https://catalog.ncsu.edu/graduate/natural-resources/graduate-certificate/geographic-information-systems-certificate/)

Faculty

Director

Eric Money

Full Professors

Sankarasubramanian Arumugam

DelWayne R. Bohnenstiehl

Thomas J Kwak

Yu-Fai Leung

Ross Kendall Meentemeyer

Helena Mitasova

Stacy A. C. Nelson

Erin Sills

Ranga Vatsavai

Karl Wegmann

Associate Professors

Joshua Gray

Jelena Vukomanovic

Adjunct Associate Professor

Frank Koch

Associate Teaching Professors

Eric Money

Stacy Supak

Laura Tateosian

Lecturers

Caitlin E. Haedrich

Katherine Jones

Thomas A. Lake

Juliana Regina Quist

Emeritus Faculty

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Hugh Devine