

Geospatial Information Science & Technology

The Master of Geospatial Information Science and Technology (MGIST) equips students with the necessary knowledge and tools to become high-end geospatial professionals using a unique curriculum that leverages NC State's strengths in computational and data sciences, information technology, and interdisciplinary training in combination with professional skills development in areas of project management, technical writing, and communications. The MGIST was designed to be completed entirely online, allowing flexibility for both students just entering the work force and working professionals.

Through a combination of geospatial theory, hands-on applications, and client-based experiential learning, students graduate from the program with a solid foundation to provide a wide range of geospatial expertise for local, state, national, and international organizations.

Learning Outcomes and Degree Requirements

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. The MGIST degree requires 33 course credit hours including a 3-credit-hour Capstone course and development of a professional portfolio highlighting geospatial analytic skills and competencies in the areas of Geospatial professionalism and ethics, programming and customization, modeling/analytics/spatial 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/>)

Distance 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) (<http://catalog.ncsu.edu/graduate/natural-resources/geospatial-information-science-technology/geospatial-information-science-technology-mr/>)
- Geographic Information Systems (Certificate) (<http://catalog.ncsu.edu/graduate/natural-resources/graduate-certificate/geographic-information-systems-certificate/>)

Faculty

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

Teaching Associate Professors

Eric Money

Stacy Supak

Laura Tateosian

Lecturers

Katherine Jones

Juliana Regina Quist

Emeritus Faculty

Perver Baran

Hugh Devine