# GEOSPATIAL INTELLIGENCE (Z109)

Graduate Certificate Program
College: Behavioral and Social Sciences

## Abstract

The Graduate Certificate in Geospatial Intelligence (GC GEOINT) program provides workforce-focused technical training that gives graduates the skills and expertise to lead new initiatives in the rapidly shifting landscape of GEOINT applications, data collection systems, analytic methods, and mission support.

The GC GEOINT program will provide state-of-the-art training in the geospatial technologies (e.g., web mapping, mobile applications, geospatial programming), geographical knowledge (e.g., geostatistics, geospatial networks, spatial reasoning), and scientific methods to address issues of public administration and policy analysis; public safety; criminology; military intelligence; emergency response and preparedness; project and workflow management; environmental applications; urban studies and regional sciences; and transportation geography. Students are provided with knowledge and practical skills in geographic information science & technology (GIS&T), remote sensing, mapping and geo-visualization, computer programming to tackle geospatial intelligence problems such as pattern recognition and feature extraction, big geospatial computing, developing source-to-screen workflows, and communicating uncertainty to decision-makers. These skills range from project design, data collection and interoperation, software development, algorithm implementation, data-mining, analytic processing and management, visualizing results and reporting. Technical skills are closely intertwined with substantive topics in a range of applied geospatial intelligence contexts, from defense and homeland security to humanitarian response and emergency management.

The GC GEOINT program encompasses a 12-credit (4 units of 3-credit courses) course structure comprised of two core courses and two elective courses that can be taken on a flexible schedule.

## Financial Assistance

Teaching Assistantships are offered depending on availability and students' qualifications.

## Contact

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**Courses:** GEOG (https://academiccatalog.umd.edu/graduate/courses/geog/)

**Relationships:** Geographical Sciences (GEOG) (https://academiccatalog.umd.edu/graduate/programs/geographical-sciences-geog/)   Geospatial Intelligence (GEIN) (https://academiccatalog.umd.edu/graduate/programs/geospatial-intelligence-gein/) Geospatial Intelligence (MPGI) (https://academiccatalog.umd.edu/graduate/programs/geospatial-intelligence-mpgi/) Geospatial Information Sciences (MPGS) (https://academiccatalog.umd.edu/graduate/programs/geospatial-information-sciences-mpgs/)   Geospatial Information Sciences (Z035) (https://academiccatalog.umd.edu/graduate/programs/geospatial-information-sciences-z035/)

## ADMISSIONS

### General Requirements

- Statement of Purpose
- Transcript(s)
- TOEFL/IELTS/PTE (international graduate students (https://gradschool.umd.edu/admissions/english-language-proficiency-requirements/))

### Program-Specific Requirements

- CV/Resume
- Supplementary Application  (https://gradschool.umd.edu/sites/gradschool.umd.edu/files/uploads/admissionsforms/umdsupplementaryapplicationgeinz109ginoz135.pdf)

**\*Visa Eligibility:** This program is not eligible for I-20 or DS-2019 issuance by the University of Maryland.

The Graduate School requires all admitted graduate students to have a baccalaureate degree from a regionally accredited college or university in the United States, or the equivalent of a baccalaureate degree in another country.

Applicants with foreign credentials must submit academic records in the original language with literal English translations.

For more admissions information or to apply to the program, please visit our Graduate School website: www.gradschool.umd.edu/admissions (https://gradschool.umd.edu/admissions/)

### Application Deadlines

| Type of Applicant | Fall Deadline | Spring Deadline |
| --- | --- | --- |
| **Domestic Applicants** | | |
| US Citizens and Permanent Residents | July 2, 2025 | January 23, 2025 |
| | Priority deadline: **May 1, 2025** | Priority deadline: **November 14, 2024** |
| **International Applicants** | | |
| F (student) or J (exchange visitor) visas; A, E, G, H, I and L visas and immigrants | N/A | N/A |

**Other Deadlines:** Please visit the program website at http://geospatial.umd.edu/landing/Education (http://geospatial.umd.edu/landing/Education/)

# REQUIREMENTS

- Geospatial Intelligence, Post-Baccalaureate Certificate (P.B.C.) (https://academiccatalog.umd.edu/graduate/programs/geospatial-intelligence-z109/geospatial-intelligence-pbc/)

# FACILITIES AND SPECIAL RESOURCES

New classroom facilities are provided for GEOINT programs as part of the development of the Center for Geospatial Information Science. A dedicated set of server and high-performance computing clusters are also provided from CGIS for teaching GEOINT courses. Students also have full access to the resources (e.g. computer labs, software applications, seminars, etc) in the Geographical Sciences Department as regular graduate students. All registered students have full access to the facilities and resources (e.g. libraries, gym, computer labs) on campus.

Our local surroundings play host to the center of influence for the geospatial intelligence industry in the United States. The National Geospatial-Intelligence Agency employs 8,500 people at the third largest federal building in the D.C. region at nearby Springfield, VA. The NASA Goddard Space Flight Center in nearby Greenbelt, and the United State Geological Survey in nearby Reston, VA serve as the nexus for the nation's earth science geospatial intelligence. The U.S. Census Bureau in nearby Suitland, MD is tasked with a decennial nationwide data collection exercise that mobilizes a huge workforce to perform geospatial intelligence gathering year-round.