DEPARTMENT OF GEOGRAPHY AND GEOINFORMATION SCIENCE

Located in the heart of Fairfax, just a few miles from Washington DC, the Department of Geography and Geoinformation Science (GGS) offers an outstanding environment to study and perform cutting-edge research in remote sensing, geography, geoinformatics, Earth systems science, and their various sub-disciplines.

With a variety of educational offerings, ranging from undergraduate programs to graduate certificates and M.S. and Ph.D. programs, a strong and broad research agenda, and superb name recognition within the leading agencies and companies in our field, our department is a premier choice for academic education.

Undergraduate Programs

The Department of Geography and Geoinformation Science offers a Geography, BA and a Geography, BS. The department also offers accelerated master’s program opportunities for the Geographic and Cartographic Sciences, MS (https://catalog.gmu.edu/colleges-schools/science/geography-geoinformation-science/geographic-cartographic-sciences-ms) and the Geoinformatics and Geospatial Intelligence, MS (https://catalog.gmu.edu/colleges-schools/science/geography-geoinformation-science/geoinformatics-geospatial-intelligence-ms). Additionally, the department offers the GeoManagement Undergraduate Certificate.

Undergraduate Certificates

The GeoManagement Undergraduate Certificate accommodates students who are pursuing a degree in the Department of Geography and Geoinformation Science who also wish to acquire more knowledge on how to manage people and organizations dealing with GIS in a global economy. By understanding marketing terms, financial matters, and also having a good understanding of how to manage people, students will be well prepared to face challenges in multidisciplinary GIS-oriented environments. All courses are available online.

Minors

For students pursuing any major in the university, the department offers a Geography Minor (fully available online), a Geographic Information Systems Minor (research and scholarship intensive), as well as an Urban Informatics Minor.

Graduate Degrees

Graduate programs are distinguished by an emphasis on cutting-edge research and their applications toward solving practical problems in human and environmental realms. Degree options include three master’s degrees and one doctoral program.

Graduate Certificates

For students wishing to pursue graduate-level specialization and skill advancement in specific, focused application areas the department offers the following graduate-level certificates: Data Journalism, Environmental GIS and Biodiversity Conservation, Geographic Information Science, Geospatial Intelligence, Remote Sensing and Image Processing, and Geographic Information Science.

Courses Available Online

Individual courses which are currently available online (in addition to their traditional delivery modes) are:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GGS 101</td>
<td>Major World Regions (Mason Core)</td>
<td>3</td>
</tr>
<tr>
<td>GGS 102</td>
<td>Physical Geography (Mason Core)</td>
<td>3</td>
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<tr>
<td>GGS 103</td>
<td>Human Geography (Mason Core)</td>
<td>3</td>
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<tr>
<td>GGS 121</td>
<td>Dynamic Atmosphere and Hydrosphere (Mason Core)</td>
<td>4</td>
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<tr>
<td>GGS 122</td>
<td>Dynamic Geosphere and Ecosphere</td>
<td>4</td>
</tr>
<tr>
<td>GGS 303</td>
<td>Geography of Resource Conservation (Mason Core)</td>
<td>3</td>
</tr>
<tr>
<td>GGS 311</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
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GGS 312  Physical Climatology  3
GGS 315  Geography of the United States  3
GGS 380  Geography of Virginia  3
GGS 416  Satellite Image Analysis  3
GGS 462  Web Mapping  3
GGS 553  Geographic Information Systems  3
GGS 650  Introduction to GIS Algorithms and Programming  3
GGS 680  Earth Image Processing  3
GGS 692  Web-based Geographic Information Systems  3

Faculty

Department Faculty

Professors
Agouris (dean), Di, Haack, Houser, Pfoser (chair), Qu, Stefanidis, Wong, C. Yang

Associate Professors
Croitoru (online coordinator), Fuhrmann, Leslie, Rice, D. Sun, R. Yang (graduate coordinator)

Assistant Professors
Burtch (undergraduate coordinator), Komwa, Rosenfeld, Wessels, Züfle

Research or Contract Professors
Batarseh, Gkountouna, Li, M. Sun

Adjunct Faculty
Dillon, Grymes, Komwa, McGlone, Resmini, Ward

Requirements & Policies

Requirements

Writing-Intensive Requirement
The university requires all students to complete at least one course designated as "writing intensive" in their majors at the 300 level or above. Students majoring in geography fulfill this requirement by successfully completing GGS 415 Seminar in Geography.

Policies

Students are governed by the university’s policies.

GGS Lab Use
Access to GGS lab space is contingent upon active student status and registration in GGS courses. Labs are key card accessible and only authorized students may use the labs for academic work.

Non-degree Status
Applicants who have not been admitted to a specific graduate degree or certificate program and still wish to attend courses may apply for non-degree studies. This is intended for students who do not seek a specific degree. These students must apply for non-degree status and be admitted through a process comparable to the one followed by degree-seeking students.

While it may be possible to transfer some of the credits earned in non-degree status to a degree program, such transfers are not automatic. Non-degree students who intend to transfer their credits to a degree program should discuss this in a timely manner with the appropriate department coordinator. Further information can be found in the Non-degree Enrollment section of this catalog.

Programs

- Data Journalism Graduate Certificate
- Earth Systems Science, MS (GGS)
- Earth Systems and Geoinformation Sciences, PhD
- Environmental GIS and Biodiversity Conservation Graduate Certificate
- GeoManagement Undergraduate Certificate
- Geographic Information Science Graduate Certificate
- Geographic Information Systems Minor
- Geographic and Cartographic Sciences, MS
- Geography Minor
- Geography, BA
- Geography, BS
- Geoinformatics and Geospatial Intelligence, MS
- Geospatial Intelligence Graduate Certificate
- Remote Sensing and Image Processing Graduate Certificate
- Urban Informatics Minor