GEOSPATIAL INTELLIGENCE, MASTER OF SCIENCE

MS in Geospatial Intelligence

Geospatial intelligence informs and influences policy, military, diplomatic, environmental, and disaster relief and recovery decisions and operations by governments at every level. Increasingly, in non-governmental sectors, it is informing and influencing public health, business, infrastructure, energy, regulatory, and advocacy decisions.

The MS in Geospatial Intelligence program unites three fields of study: the history of geospatial intelligence; the science and mathematics of digital geography and its related databases; and the art of converting geospatial data into written, spoken, and visual intelligence. Students analyze historical intelligence examples to understand the development of the concepts and practices behind collection, analysis, reporting, and technology. They also focus on current challenges in the profession, among them the analytics and technology needed for the volume of current and future collection, the challenges of new sensors, and the development of new non-governmental geospatial communities.

Please note that this entry is for currently enrolled students only. The MS in Geospatial Intelligence program is not currently accepting new students.

Admissions Criteria for All Advanced Academic Programs (https://e-catalogue.jhu.edu/arts-sciences/advanced-academic-programs/Admission/#admissionrequirementstext)

PROGRAM-SPECIFIC REQUIREMENTS

Please note that this entry is for currently enrolled students only. The MS in Geospatial Intelligence program is not currently accepting new students.

Program Requirements

Students complete 12 courses to earn their degree:

- Eight required core courses
- One customizable core course
- Three elective courses

Please note that this entry is for currently enrolled students only. The MS in Geospatial Intelligence program is not currently accepting new students.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS.472.600</td>
<td>Capstone in Geospatial Intelligence</td>
<td>3</td>
</tr>
</tbody>
</table>

Core Courses - Customizable:

Select one of the following:

- AS.473.644 Technical Collection of Intelligence
- AS.430.602 Remote Sensing: Systems and Applications

Electives 9

Select three of the following:

- AS.430.600 Web GIS
- AS.430.606 Programming in GIS
- AS.430.609 Spatial Data Management: Quality and Control
- AS.430.611
- AS.430.613 Advanced Topics in Remote Sensing
- AS.430.615 Big Data Analytics: Tools and Techniques
- AS.430.618 Advanced Python Scripting for GIS
- AS.430.619 Web Application Development
- AS.430.627 Artificial Intelligence and Machine Learning in Geospatial Technology
- AS.430.629 Drones in Geospatial Decision Making
- AS.430.621 GIS for Emergency Management
- AS.470.601 Climate Change and National Security
- AS.470.667 Machine Learning Methods and Applications
- AS.470.657 Energy, Security, and Defense
- AS.472.610 Commercial Imagery and the Impact of Small Satellites
- AS.472.611 Analyzing Social Media and Geospatial Information
- AS.472.612 Geospatial Analysis: Communicating with Multiple Audiences
- AS.473.604 Applied Critical Thinking and Analysis
- AS.473.607 Intelligence Ethics
- AS.473.602 Intelligence Analysis

Total Credits 40

Learning Outcomes

The MS in Geospatial Intelligence weaves the history, science, mathematics, and art of geospatial analysis into a program that will enable its graduates to lead and shape this rapidly-growing intelligence discipline. The program combines recognized faculty with extensive geospatial experience and publications, an interactive and online curriculum, and the research resources, tools, and opportunities for its students to:

- Understand the history and evolution of geospatial intelligence and its enduring challenges.
- Develop the habits of mind and the conceptual framework to thrive as analysts, researchers, program leaders, and managers in the geospatial communities.
- Employ the appropriate mathematical models and scientific sensor knowledge necessary to design advanced commercial geospatial collection management for big data and small data problems, and to design geospatial databases for complex issues.
- Develop analytic processes and products as well as demonstrate the ability to communicate geospatial information and analysis accurately and persuasively in writing and briefing.
• Produce original research on the history and methodologies of geospatial intelligence.

Please note that this entry is for currently enrolled students only. The MS in Geospatial Intelligence program is not currently accepting new students.