GEOSPATIAL ARTIFICIAL INTELLIGENCE AND HEALTHCARE (ONLINE) (MPGH)

Graduate Degree Program
College: School of Public Health

Abstract

Geospatial Artificial Intelligence (GeoAI) plays an increasingly vital role in improving healthcare delivery and outcomes, particularly in public health. This program prepares students with an understanding of and the skills to apply spatial analysis, big data analytics, AI technologies, and quantitative methods to address health disparities, improve the provision of care, and identify innovative solutions to improve population health.

The Master of Professional Studies in Geospatial Artificial Intelligence and Healthcare is a 30-credit, fully online, multidisciplinary graduate program jointly offered by the Department of Geographical Sciences and the Department of Health Policy and Management. The program offers students a rigorous, multidisciplinary curriculum with courses addressing Health Systems, Geospatial Technologies and Artificial Intelligence in Public Health, Web GIS for Public Health, Spatial Analytics in Public Health, Natural Hazards and Crises, Healthcare Strategic Planning and Management, Quantitative Methods in Healthcare Administration, and Healthcare Leadership and Communication. The curriculum prepares graduates with the necessary skills to integrate AI with GIS, address healthcare disparities, and implement data-driven solutions to improve healthcare delivery and population health. The program includes a 3-credit Capstone project applying knowledge and skills learned in other courses to complete comprehensive and in-depth research on a selected topic, culminating in a scholarly paper.

Upon completion of the MPS in GeoAI and Healthcare, graduates will be uniquely positioned to bridge technology and healthcare, advancing data-driven health innovations and contributing to global efforts to achieve equitable, efficient, and intelligent healthcare systems.

Contact

For additional information, please contact:

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Courses: HLSA GEOG SPHL (https://umd-curr.courseleaf.com/graduate/courses/hlsa/)

ADMISSIONS

The **Master of Professional Studies in Geospatial Artificial Intelligence and Healthcare (MPS Geo-AI)** accepts applications through the TerpEngage Graduate Admissions System (https://terpengage.umd.edu/community/CustomLoginPage/?GradApp=True).

GENERAL ADMISSION REQUIREMENTS

- A Bachelor's degree
- Minimum 3.0 undergraduate GPA
- Statement of Purpose
- Transcripts from all previous coursework
- English proficiency test score (TOEFL, IELTS or PTE) (international applicants (https://gradschool.umd.edu/admissions/english-language-proficiency-requirements/))
- Response to personal experiences question(s)

PROGRAM SPECIFIC REQUIREMENTS

***Applicants who require a student visa to complete graduate studies are not eligible for this program. The University of Maryland cannot issue an I-20 for this program.**

- Two letters of Recommendation
- Resume or curriculum vitae
- Prospective students need to meet the prerequisite requirement of an undergraduate statistics course or a higher-level math course
- One writing sample is optional
- Note for applicants with foreign credentials:
- The UMD graduate application requires uploading unofficial transcripts issued in the original language, along with a literal English translation. Visit the Graduate School website for additional information. (https://gradschool.umd.edu/admissions/international-admissions/)
- Evidence of English Language proficiency is required if the applicant does not hold a degree from a U.S. institution or one of the English-speaking countries listed on the Graduate School website (https://gradschool.umd.edu/admissions/english-language-proficiency-requirements/).
- Students applying for an Online program must meet the language requirements for Full Enrollment.
- For detailed instructions on how to apply, please visit the School of Public Health Website: https://sph.umd.ed/graduate-application-process (https://sph.umd.ed/graduate-application-process/)

Application Deadlines

Type of Applicant	Fall Deadline	Spring Deadline	Summer Deadline
Domestic Applicants			
US Citizens and Permanent Residents	May 14, 2026	November 20, 2026	N/A
International Applicants			
F (student) or J (exchange visitor) visas,E,G,H,I and L visas and immigrants	May 14, 2026	November 20, 2026	N/A

RESOURCES AND LINKS

Program website: https://exst.umd.edu/professionals-post-baccalaureates/professional-graduate-programs/school-public-health-graduate-programs-online/mps-geospatial-artificial-intelligence-healthcare (https://exst.umd.edu/professionals-post-baccalaureates/professional-graduate-programs/school-public-health-graduate-programs-online/mps-geospatial-artificial-intelligence-healthcare/)
Application Process: https://sph.umd.edu/admissions/graduate-admissions/graduate-application-process (https://sph.umd.edu/admissions/graduate-admissions/graduate-application-process/)
Admissions FAQ: https://sph.umd.edu/admissions/graduate-admissions/graduate-application-faqs (https://sph.umd.edu/admissions/graduate-admissions/graduate-application-faqs/)

REQUIREMENTS

- Geospatial Artificial Intelligence and Healthcare, Master of Professional Studies (M.P.S.) (https://academiccatalog.umd.edu/graduate/programs/geospatial-artificial-intelligence-and-healthcare-online-mpgh/geospatial-artificial-intelligence-and-healthcare-mps/)

FACILITIES AND SPECIAL RESOURCES

The program is asynchronous online and will utilize ELMS/Canvas and UMD Zoom for instructional purposes. Students are able to work from virtual desktops and servers supported by a VMware environment. The labs run a wide variety of commercial and open source software for GIS, remote sensing, statistical analysis, data access, image processing, mathematical analyses, graphics and 3D modeling, and software development.