Geospatial Education

Online
Geospatial

"I was given the flexibility to craft my educational agenda based on my career aspirations. That's what made my Penn State experience life-changing."

—Sarah L.
Master of Geographic Information Systems

Education

8 Online Programs

As a student in one of our eight online geospatial programs, you will have the opportunity to learn career-relevant skills and competencies that can be put to work in a number of commercial and public sector fields. All of our programs are offered completely online, with no residency requirements.

Recognized, award-winning online programs

For more than two decades, Penn State World Campus and the College of Earth and Mineral Sciences' Department of Geography have been offering high-quality online geospatial education, conferring degrees and certificates to thousands of working professionals.

Our comprehensive curriculum has been carefully designed to prepare you for challenging positions in a wide range of geospatial fields, with fresh, innovative course content focused on cutting-edge technologies and concepts.

Let Penn State help you prepare to work at the forefront of the industry.

Online Geospatial
Master's Degree Progr

Topics covered
may include open web mapping, cartography, programming, remote sensing and imagery analysis, domain applications, project management, and spatial database design.

Master of Geographic Information Systems (MGIS)

Gain the skills you need to effectively apply spatial analysis and mapping methods to solve real-world problems as a student in this 33-credit online MGIS program. You can:

› design, manage, and leverage geographic information systems and spatial analysis tools to tackle issues that impact people and our planet

› develop the technical and analytical competencies required to serve as a geospatial leader in public and private sector organizations

  › concentrate your course work by adding options in GEOINT or geodesign, or by choosing a customized set of electives that match your career goals

See a complete course list:
worldcampus.psu.edu/mgiscourses

Choose from
30 courses
to customize your learning

All programs are eligible for financial aid!

ams

Master of Science in Spatial Data Science (SDS)

Learn to develop new geospatial solutions that will have a positive impact on people's lives. This 33–36 credit program combines programming, spatial analysis methods, and applied domain experiences to help you solve critical problems where typical GIS applications fall short. Students can learn to:

› integrate computational, spatial data, and visualization frameworks

› develop workflows that leverage advancements in geocomputation, geovisual analytics, open geospatial data, and spatial thinking

› research, critique, and communicate data quality and map spatial analysis results

See a complete course list:
worldcampus.psu.edu/sdscourses

Master of Professional Studies in Homeland Security – Intelligence and Geospatial Analysis option

This 33-credit master's program is designed to help you increase the skills and knowledge you need as an analyst to produce accurate intelligence to help save lives, improve government, and mitigate threats to private and public sector organizations. As a student, you will:

› study domestic and global issues related to homeland security

› discover how geospatial intelligence (GEOINT) is applied in national security, international relief work, and disaster management

› see how spatial data and GIS are used to improve decision-making

See a complete course list:
worldcampus.psu.edu/hlsgeocourses

No GRE scores required.
Apply without waiting.

Online Geospatial
Graduate Certificates

Geographic Information Systems (GIS)

Gain a strong foundation in GIS skills and spatial analysis methods by using the most up-to-date tools and methods and applying them to real-world problems. Focus on the essentials if you are new to the geospatial industry, or boost your existing skill set if you're already a seasoned professional.

Spatial Data Science

Immerse yourself in key theories, emerging research, and contemporary spatial analysis techniques. Learn to develop new spatial data science software, analytical methods, and cartographic products that can be used to visualize and communicate analytical results. Previous GIS experience is required.

View more details:

worldcampus.psu.edu/geospatial

Earn a Penn State certificate in as little as

9 months

Online Geospatial
Graduate Certificates

GEOINT Analytics

Enhance your ability to apply spatial tools and analyze data to solve problems and then effectively communicate and leverage your findings. This program is an ideal choice if you work in national security, disaster response, resource preservation, or business intelligence.

Geospatial Programming and Web Map Development

Learn to script the automation of spatial analysis processes, develop custom user interfaces on top of existing desktop applications, and create web-based interactive mapping applications that support spatial data science.

Remote Sensing and Earth Observation

Leverage data gathered from satellites, drones, sensors, and lidar to solve complex geospatial problems. Discover how to apply computational methods to automate the analysis of Earth observation data and integrate those skills into a GIS workflow.

View more details:

worldcampus.psu.edu/geospatial
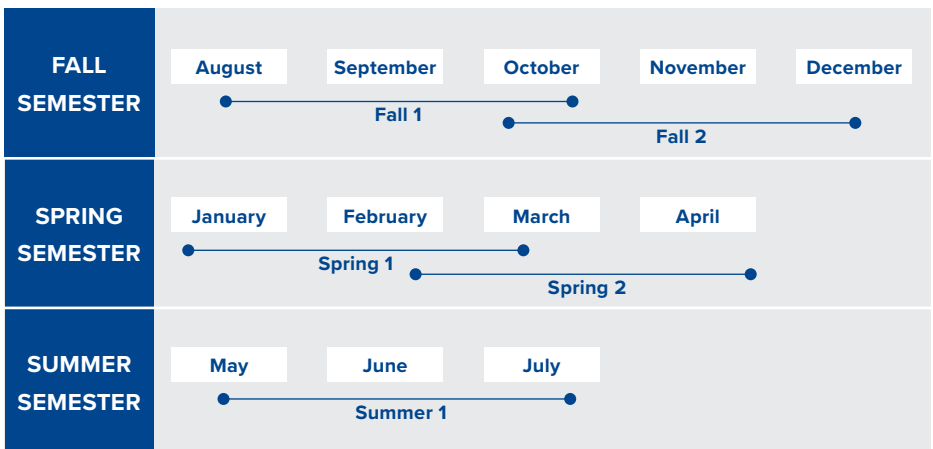
Flexible, Personalized Learning

Earn multiple credentials

Many students begin their Penn State geospatial studies in one of our online postbaccalaureate or graduate certificate programs. Credits earned while completing a certificate can also be applied toward a master's degree, if you are accepted into a program.

Flexible scheduling

Our geospatial courses are offered in five 10-week terms. You have the freedom to schedule your courses with or without overlap, taking simultaneous courses to finish sooner or extending your education over a longer duration. You can choose the learning style that works best for you!

Online geospatial courses are available year-round

FALL SEMESTER	August	September	October	November	December
		Fall 1		Fall 2	
SPRING SEMESTER	January	February	March	April	
		Spring 1		Spring 2	
SUMMER SEMESTER	May	June	July		
		Summer 1			

100% Online
Learn from the

A pioneer in online education

Penn State has been offering online geospatial education longer than any other provider in the United States. Additionally, World Campus was the first to offer a comprehensive GEOINT program in a 100% online format, delivering courses on emerging topics like lidar, drone mapping, and open web mapping.

Our faculty members bring a wealth of real-world experience into their teaching and are wholly dedicated to helping you succeed in your field of choice.

20+ years
of quality online
GIS education

"The program gave me the chance to broaden my horizons. The breadth of the material, combined with the diverse backgrounds of students and faculty, provided me with opportunities to rethink my understanding of what GIS is and what it can be used for."

**—John P.
Master of Geographic
Information Systems**

Leader

"I've learned how to do something extremely valuable from every class I've taken, whether it's using new imaging techniques, measuring the slopes of mountains to determine boundaries, or developing a geodatabase. It's all helped me to significantly expand my knowledge base."

—Parrish H.
GEOINT Analytics certificate and
Master of Geographic Information Systems

Service members, veterans, and their families have access to benefits including specialized support services, tuition reductions, and academic flexibility during deployment.

Learn more: **worldcampus.psu.edu/ gis4military**

The Penn State difference

Penn State World Campus, a top-ranked provider of online education, partners with distinguished Penn State academic colleges to offer a high-quality education to students everywhere. Our convenient online learning format allows you to pursue your education at your own pace without interfering with your professional and personal responsibilities.

As a Penn State World Campus student, you'll enjoy the same support services as a resident student: admissions counseling, assistance with course scheduling and registration, 24/7 IT Service Desk, career services, and more. Upon graduation, your diploma will be identical to one earned by a resident student, with no indication that your courses were completed online.

Visit us: **worldcampus.psu.edu/geospatial**

Accredited and recognized for excellence in online education

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Department of Geography
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The Pennsylvania State University
128 Outreach Building
University Park, PA 16802

Start your application today!
Visit worldcampus.psu.edu and click "Apply Now."

Please note that application requirements may vary by program. All applicants must hold a baccalaureate degree from a regionally accredited U.S. institution, or a postsecondary degree that is deemed comparable.

Landsat images courtesy of the U.S. Geological Survey.