



Certificate in Geographic Information Systems Applications University of Maine at Machias

Get a GIS Certificate in two years or less on your own schedule!

The UMM certificate program offers GIS courses in a hybrid format, blending the convenience of online learning with the support of face-to-face interaction with college faculty. Each hybrid course features:

- Three weekend days of on-campus instruction at beginning, middle and end of the semester
- Hands-on laboratory exercises you can do on your own computer
- Free, professional GIS software
- Online lecture videos that bring personal instruction to you
- Service projects with real-world applications of GIS
- Accessible, helpful faculty ready to communicate via phone, web chat or video conferencing

What is GIS?

Geographic Information Systems (GIS) technology refers to computer software, data, and methods that allow users to easily collect, store and manage spatial information, create maps, and analyze spatial relationships. With GIS, you can ask geographic questions, solve geographic problems, and communicate geographic ideas. It's commonly used in government, education and private sector applications.

GIS professionals are in demand!

The UMM program can give you an advantage to compete in today's tight job market. You'll learn to:

- Use industry standard geospatial software
- Make attractive and useful maps
- Do spatial analysis and make spatial models
- Create and compile GIS data
- Create and manage geo-databases
- Integrate GPS and GIS technologies
- Apply GIS to novel problems and troubleshoot technical glitches

Where can you use GIS skills?

Here's just a partial list of regional opportunities for GIS:

Agriculture	Information Technology
Recreation & Tourism	Public Health, Public Safety & Criminal Science
Education	Planning, Landscape Architecture & Civil Engineering
Social Services	Geo-science, Cartography & Surveying
Arts & Graphic Design	Economics, Business & Administration
Maritime Industries	Environmental Sciences, Management & Engineering

Real projects, real experience!

Using your mapping and geospatial analysis skills, you'll work with local organizations, companies or agencies, providing valuable services while learning to apply GIS. Here are a few recent student projects at UMM:

- Service center interns are digitizing tax maps for Washington County towns for planning, economic development, and land use management.
- Students in an advanced GIS course developed a set of maps to help the Town of Machiasport manage their harbors, shorelines, and clam flats.
- The Town of Jonesboro is using maps designed by UMM students to create a comprehensive plan.

Course requirements (23 to 24 total credits)

Required courses:

Geographic Information Systems Applications (GIS) I – 4cr
Introduction to Geography or equivalent (offered online only) – 3cr
Geographic Information Systems Applications (GIS) II – 4cr
Global Positioning Systems (GPS) – 1 or 2cr
Internship – 3cr

Choose two (all require GIS 1 & GIS 2 as prerequisites):

Advanced Projects in Geographic Information Systems (GIS) 4cr
Community Applications of Geographic Information Systems 4cr
Remote Sensing and Image Analysis 4cr
Geostatistics 4cr
GIS Application Development 4cr

What do you need to enter the certificate program?

You should have basic computer skills and be familiar with Windows operating systems. Experience with spreadsheets and common office applications is helpful.

<u>Sample Course of Study</u>	
<u>Year 1</u>	<u>Year 2</u>
<u>Fall</u> GIS 1 Intro. to Geography	<u>Fall</u> GIS Elective GIS Internship
<u>Spring</u> GIS 2 GPS	<u>Spring</u> GIS Elective

For hybrid and distance GIS courses, students must own or have access to a computer with at least the minimum system requirements for the GIS software (see the program website for more details). Students also have access to the GIS laboratory at the UMM campus and the satellite laboratory at Washington County Community College.

GIS software and the required data package are provided free for enrolled students. Students will receive a University of Maine System email account and server storage space accessible via the web. Additional required software is available for download free of charge. At the first on-campus class meeting, faculty and staff can help you prepare your computer and install required software.

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Find out more or apply today!

Visit www.umm.maine.edu/gis or call 207.255.1214