

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 are providing spatial analysis services for a regional sustainability plan.
- UMM GIS students and interns mapped and analyzed scenic resources in Washington and Hancock Counties for the Downeast and Acadia Scenic Inventory Project.

Course requirements (23 to 24 total credits)

Required courses:

GIS 230 Geographic Information Systems Applications I – 4cr
GEO 101 Intro. to Geography or equivalent – 3cr
GIS 330 Geographic Information Systems Applications II – 4cr
GIS 204 Intro. to Global Positioning Systems – 1 or 2cr
Choose THREE additional GIS elective courses 300 level or above

Electives currently offered include...

GIS 312 Municipal Applications of GIS	GIS 429 GIS Internship
GIS 420 Remote Sensing & Image Analysis	GIS 431 Intro. to Geostatistics
GIS 424 Advanced Projects in GIS	GIS 201/301/401 Special Topics in GIS
GIS 426 Community Applications of GIS	

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. 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 (http://bit.ly/arc10_sys_req). All GIS student 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.

<u>Sample Course of Study</u>	
<u>Year 1 (2yr track)</u>	<u>Year 1 (fast track)</u>
<u>Fall</u> GIS 1 Intro. to Geography	<u>Fall</u> GIS 1 Intro. to Geography
<u>Spring</u> GIS 2	<u>Winter Term</u> GPS (1cr)
<u>May Term</u> GPS (2cr)	<u>Spring</u> GIS 2 GIS Elective
<u>Year 2</u> <u>Fall</u> GIS Elective GIS Internship	<u>Year 2 or Summer</u> GIS Elective
<u>Spring</u> GIS Elective	

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Find out more or enroll today!

Visit www.machias.edu/gis or call 207.255.1214