**Course Details**

GIS 204: Introduction to Satellite Positioning and Navigation Systems (1 cr)

Students will learn the basics of satellite positioning systems and use handheld GPS receivers in the field to navigate, gather data and create maps. We will do several outdoor, hands-on activities, as well as mapping activities in the laboratory. The week will culminate in a field mapping activity. Grades will be based on field activities, quizzes and a service project.

**Meet Professor Tora Johnson**

Tora Johnson has taught marine, environmental, and computer mapping (GIS) since 1996. Before teaching college, Tora made a career of teaching and crewing aboard several of the large sailing vessels that ply the coast of New England, as well as commercial fishing in Alaska. Also a writer, Dr. Johnson's award-winning book, Entanglements: The Intertwined Fates of Whales and Fishermen, was released in 2005.

**Cost**

Maine public high school students: $325.00  
All other in-state, out-of-state, and international students: $463.25

Scholarships are available, but all students will be required to pay a minimum of $25.00.

Get a head start on college this summer at the UMaine and the University of Maine at Machias!  
**Apply online:** machias.edu/earlycollege/summer-institutes  
For more information: email Christy Alley, Director of Early College, at ummearlycollege@maine.edu
Greenland Point is nestled in the center of a 64-acre wooded peninsula on Long Lake in Princeton. Long Lake is one of several large lakes near Grand Lake Stream in the Down East region of Maine. The camp includes traditional rustic log cabins that form a small village and a sporting-camp-style lodge and dining hall. The extensive waterfront includes an aquatics area, boating docks, and natural shoreline, providing swimming, boating and great fishing opportunities. The forested location boasts hiking trails and unique natural features to explore, and includes remote campsites, and plenty of wildlife that call Greenland Point home. Learn more at extension.umaine.edu/greenland-point.

The GIS 204 course can be used toward a UMM/UMaine Early College Career Pathway.

UMM Geographic Information Systems Career Pathway
- GIS 102: Our Digital Earth (4 cr)
- GEO 101: Intro to Geography (3 cr)
- GIS 101: Intro to Geospatial Careers (1 cr)
- GIS 204: Intro to GNSS (1-2 cr)
- GIS 300: Geographic Information Systems I (4 cr)

Learn more about related UMM programs and careers at machias.edu/earlycollege/pathways.

UMaine Outdoor Leadership Career Pathway
Requirements:
- KPE 209: Wilderness First Responder (3 cr) Live
- KPE 265: Outdoor and Adventure Activities (3 cr) Live
- LDR 100: Foundations of Leadership (3 cr) Online

Recommended Electives (Choose 2):
- BIS 105: Excel Fundamentals for Business Analytics
- ENG 205: Intro to Creative Writing
- ERS 103: Dynamic Earth
- GIS 204: Introduction to Satellite Positioning and Navigation Systems
- MES 101: Introduction to Maine Studies**
- NAS 101: Intro to Native American Studies
- PSY 100: General Psychology**
- SFR 111/112: Forests Through Time

**required for degree program

Learn more about related UMaine programs and careers at umaine.edu/earlycollege/pathways.

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