

# GEOMATICS

The Geomatics profession collects, manages, and analyzes geospatial data through ground surveying, photogrammetry, remote sensing, satellite positioning, inertial measurements, echo-sounding, and laser scanning. Geomatics students study geometry, statistics, boundary law, and surveying and mapping instrument usage.

## About this Program

- **College:** Agricultural and Life Sciences (<http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/>)
- **Degree:** Bachelor of Science in Geomatics
- **Specializations:** Geospatial Analysis ([http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/GEM\\_BSGE/GEM\\_BSGE01/](http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/GEM_BSGE/GEM_BSGE01/)) | Surveying and Mapping ([http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/GEM\\_BSGE/GEM\\_BSGE02/](http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/GEM_BSGE/GEM_BSGE02/))
- **Credits for Degree:** 120

*To graduate with this major, students must complete all university, college, and major requirements.*

## School Information

The School of Forest, Fisheries, and Geomatics Sciences is a unit within the Institute of Food and Agricultural Sciences (IFAS) and the College of Agricultural and Life Sciences (CALS). The school is home to three distinct yet integrated program areas: Fisheries and Aquatic Sciences (<http://sfrc.ufl.edu/fish/>), Forest Resources and Conservation (<http://sfrc.ufl.edu/forest/>), and Geomatics (<http://sfrc.ufl.edu/geomatics/>). The school's faculty, staff, and students conduct research, teaching, and extension that cuts across a wide range of environments and disciplines.

**Website** (<http://sfrc.ufl.edu/>)

## CONTACT

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Map (<http://campusmap.ufl.edu/#/index/0832>)

## Curriculum

- Combination Degrees
- Environmental Policy, Law, and Regulation Certificate
- Fire Ecology and Management Certificate
- Fisheries and Aquatic Sciences Minor
- Forest Health Management Certificate
- Forest Resources and Conservation
- Forest Resources and Conservation Minor
- Geomatics
- Geomatics Certificate
- Mapping with Small Unmanned Aerial Systems Certificate
- Marine Sciences | CALS
- Natural Resource Conservation
- Recreation Resources Management Certificate
- Urban Forestry Certificate

Geomatics students learn how land, infrastructure, and natural resources are measured, analyzed, and integrated into useable forms and systems. Students gain hands-on experience working with field equipment and in high-tech classrooms. Present land values, rates of urban development, and environmental concerns require a broad set of expertise to develop, manage, and apply geospatial information. Students majoring in Geomatics complete either the Surveying and Mapping specialization or the Geospatial Analysis specialization.

Both specializations within the Geomatics major are offered at the Fort Lauderdale Research and Education Center in Ft. Lauderdale, FL, and the Gulf Coast Research and Education Center in Plant City, FL (near Tampa).

## Academic Learning Compact

Geomatics addresses land information development and management through field survey, photogrammetry, remote sensing, satellite positions, and other techniques. The program is nationally accredited and graduates often obtain licensure as professional surveyors and mappers.

A nationally accredited ABET (<http://www.abet.org/>) program.

## Before Graduating Students Must

- Pass the geomatics competency exam, given in five parts. One part will be given in each of these required courses:

Code	Title	Credits
SUR 3103C	Geomatics	3
SUR 3520	Measurement Science	3
SUR 4430	Surveying and Mapping Practice	3
SUR 4463	Subdivision Design	3
SUR 4912	Senior Project	1
<b>Total Credits</b>		<b>13</b>

- Complete requirements for the baccalaureate degree, as determined by faculty.

## Students in the Major Will Learn to

### Student Learning Outcomes | SLOs

#### Content

1. Knowledge and competency in geometry, statistics, boundary law, surveying, and mapping instrument usage and statutes and ordinances pertaining to professional practice.

#### Critical Thinking

2. Define problems, formulate solutions, assess legal evidence, interpret statistical results, design a system or process, and understand professional and ethical issues.

#### Communication

3. Create, interpret and analyze written text, oral messages, and multimedia presentations.

### Curriculum Map

*I = Introduced; R = Reinforced; A = Assessed*

Courses	SLO 1	SLO 2	SLO 3
SUR 3103C	I, R, A	I, R, A	I, R, A
SUR 3520		I, R, A	I, R, A
SUR 4430	I, R, A	R, A	R, A
SUR 4463	R, A	R, A	R, A
SUR 4912		R, A	R, A

## Assessment Types

- Labs
  - Projects
  - Papers
  - Exams
  - Presentations
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