

# **2012-2013 Undergraduate Academic Assessment Plan**

Geomatics

College of Agricultural  
and Life Sciences

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# Geomatics

## College of Agricultural and Life Sciences

### 2012-2013 Undergraduate Academic Assessment Plan

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#### **Mission Statement**

The Mission of the School of Forest Resources and Conservation is to develop and communicate new knowledge and technologies that advance the production, management and conservation of natural resources in an environmentally, economically and socially sustainable manner on local, regional, national and global levels. The School supports the mission of the University of Florida by supporting teaching at the undergraduate and graduate levels, research and scholarship, and service (including Extension) within the broad field of natural resources.

#### **Student Learning Outcomes (SLOs)**

##### *Content*

1. Discuss and apply concepts in geometry, statistics, boundary law, surveying and mapping instrument usage, and statutes and ordinances pertaining to professional practice.

##### *Critical Thinking*

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

##### *Communication*

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

## Curriculum Map

Curriculum Map for:

Geomatics

College of Agricultural and Life Sciences

Key: **I**ntrouced

**R**einforced

**A**ssessed

Courses SLOs	SUR 3103C	SUR 3520	SUR 4430	SUR 4463	SUR 4912 Senior Project
<b>Content Knowledge</b>					
#1	I, R A=Quizzes 1-3; Homeworks 1-4; Labs 2-5, 7, 9-12		I, R A=Quizzes 1-6; Labs 3-4, 8, 10-12	R A=Meeting Attendance, Paper, Design Project Phases 1-6	
<b>Critical Thinking</b>					
#1	I, R A=Quizzes 1-3; Homeworks 1-4; Labs 2-5, 7, 9-12	I, R A=Assignments 1, 3-4; Field Lab	R A=Quizzes 1-6; Labs 1-4, 8, 10-12	R A=Meeting Attendance, Paper, Design Project Phases 1-6	R A=Literature Review; Final Paper; Scientific Journal Article Manuscript/Draft Critique; Final Project PowerPoint; Final Project Oral Presentation
<b>Communication</b>					
#1	I, R A= Labs 9-12	I, R A=Field Lab	R A=Quizzes 1-4; Labs 1-4, 8, 11-12	R A=Meeting Attendance, Paper, Design Project Phases 1-6	R A=Literature Review; Final Paper; Scientific Journal Article Manuscript/Draft Critique; Final Project PowerPoint; Final Project Oral Presentation

## Assessment Cycle

Results will be collected and a basic analysis conducted annually. A more comprehensive, strategic planning exercise based on assessment results will occur on a three-year cycle (indicated as XC in the table below).

## Assessment Cycle Chart

Assessment Cycle for:

Geomatics

College of Agricultural and Life Sciences

Analysis and Interpretation:

April – May of each year

Improvement Actions:

July – September of each year

Dissemination:

July 30 annually

SLOs	Year	11-12	12-13	13-14	14-15	15-16	16-17
<b>Content Knowledge</b>							
#1		X	X	XC	X	X	XC
<b>Critical Thinking</b>							
#1		X	X	XC	X	X	XC
<b>Communication</b>							
#1		X	X	XC	X	X	XC

## Methods and Procedures

### SLO Assessment Matrix for 2012-13

2012-13 Student Learning Outcome	Assessment Method	Measurement Procedure
Discuss and apply concepts in geometry, statistics, boundary law, surveying and mapping instrument usage, and statutes and ordinances pertaining to professional practice.	Quizzes, homework, labs, meeting attendance, paper, design project phases 1-6	Rubric
Define problems, formulate solutions, assess legal evidence, interpret statistical results, design a system or process and understand professional and ethical issues.	Quizzes; homework; labs; Literature Review; Final Paper; Scientific Journal Article Manuscript/Draft Critique; Final Project PowerPoint; Final Project Oral Presentation	Rubric (for example, see evaluation form for SUR4912 <i>Senior Project</i> – attached)
Create, interpret and analyze written text, oral messages, and multimedia presentations.	Quizzes; homework; labs; Literature Review; Final Paper; Scientific Journal Article Manuscript/Draft Critique; Final Project PowerPoint; Final Project Oral Presentation	Rubric (for example, see evaluation form for SUR4912 <i>Senior Project</i> – attached)

Students working towards a Bachelor of Science in Geomatics (BS GEM) are required to take 16 core classes. We focused our SLO assessment on a set of five courses required for all GEM students. The following tools will be used to assess SLOs:

1. Specific assignments (quizzes, labs, homeworks, exams, projects, etc.) for each course indicated will be graded using faculty-developed rubrics, and those grades collected and analyzed. See the detailed description of assessments utilized in ***Curriculum Map***. A sample rubric for SUR4912 *Senior Project* is attached.

These data will be compiled as the students complete their program and compiled within an SLO report. All students' reports will be filed with the Education/Training Coordinator, a senior staff position within the School of Forest Resources & Conservation. Data will be analyzed from each report to determine an overall assessment of SLO achievement for the BS GEM degree at the completion of an academic year. Results will be interpreted over the summer in years 2014 and 2017 – noting improvements to instruction if SLO assessment scores trend negative.

Indirect assessment will be conducted using three methods: 1) during an existing "exit interview" conducted as students graduate, by the SFRC Director, during which students have the opportunity to

discuss any curriculum deficiencies they have identified, opportunities to enhance the program, courses or instructors they found especially beneficial, and similar; 2) through informal monitoring of placement rates for graduates, as well as the type of positions graduates receive; and 3) through informal feedback on curriculum, and on the capabilities of graduates, from the SFRC Advisory Board, and in particular the Geomatics Advisory Council (both entities meet twice a year).

## Assessment Oversight

The Geomatics Program Advisory Committee is responsible for reviewing the ABET outcome assessment, and as such will review the subset covered by the SLO Assessment Plan for the Bachelor of Science in Geomatics. This Committee is composed of faculty and staff members, as well as program stakeholders and practicing professionals. The current composition of the Committee is described below

Name	Department Affiliation	Email Address	Phone Number
Dr. Amr Abd-Elraham	School of Forest Resources and Conservation (SFRC)	<a href="mailto:aamr@ufl.edu">aamr@ufl.edu</a>	813.757.2283
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Dr. Bon Dewitt	SFRC	<a href="mailto:bon@ufl.edu">bon@ufl.edu</a>	352.392.4957
Dr. H. Henry Hochmair	SFRC	<a href="mailto:hhochmair@ufl.edu">hhhochmair@ufl.edu</a>	954.577.6317
Dr. Ahmed Mohamed	SFRC	<a href="mailto:amohamed@ufl.edu">amohamed@ufl.edu</a>	352.392.3465
Dr. Scot Smith	SFRC	<a href="mailto:sesmith@ufl.edu">sesmith@ufl.edu</a>	352.392.4990
John "Jack" Breed	CivilSurv Design Group	<a href="mailto:jbreed@ufl.edu">jbreed@ufl.edu</a>	863.646.4771
John Clyatt	Pickett & Associates, Inc.	<a href="mailto:jclyatt@pickett-inc.com">jclyatt@pickett-inc.com</a>	863.533.9095
Jeffrey Cooner	Jeffrey Cooner & Assoc.	<a href="mailto:jeffc@cooner.com">jeffc@cooner.com</a>	239.277.0722
Russell Hyatt	Hyatt Survey Services, Inc.	<a href="mailto:russell@hyatt-survey.com">russell@hyatt-survey.com</a>	941.748.4693
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Gordon Niles	Degrove Surveyors, Inc.	<a href="mailto:niles@degrove.com">niles@degrove.com</a>	904.722.0400
Greg Nipper	George F. Young, Inc.	<a href="mailto:nipper@georgefyoung.com">nipper@georgefyoung.com</a>	727.822.4317
Jim Peterson	Southeastern Surveying and Mapping Corp.	<a href="mailto:jpetersen@southeasternsurveying.com">jpetersen@southeasternsurveying.com</a>	407.292.8580
Walter Robillard	attorney, and surveying consultant	<a href="mailto:robw@mindspring.com">robw@mindspring.com</a>	404.248.1602
Terry Wilkinson	FL Bureau of Surveying and Mapping	<a href="mailto:terry.wilkinson@dep.state.fl.us">terry.wilkinson@dep.state.fl.us</a>	850.245.2607
Damon Wolfe	US Army Corps of Engineers	<a href="mailto:damon.a.wolfe@usace.army.mil">damon.a.wolfe@usace.army.mil</a>	800.291.9405

**SUR 4912 Senior Project  
Evaluation Form**

**Overall Grade:** \_\_\_\_\_/100

**Project Proposal: Grade (0-10):** \_\_\_\_\_

Faculty Advisor  
Problem Statement  
Objectives  
List of potential references  
Methods  
Signed by student and faculty

**Written Literature Review: Grade (0-10):** \_\_\_\_\_

Format and grammar  
Substance  
References

**Outline of Paper: Grade (0-5):** \_\_\_\_\_

Organization  
Completeness

**First Draft Paper: Grade (0-25):** \_\_\_\_\_

Format  
Clear objective  
Method and analysis  
Structure and organization  
Grammar  
Conclusion

**First Draft Presentation File: Grade (0-5):** \_\_\_\_\_

Clarity

Graphics and scale  
Logical flow

**Oral Presentation: Grade (0-15):** \_\_\_\_\_

Introduction  
Highlighted points  
Conclusion  
Style (clear voice, eye-contact, visual aids,)

**Final Paper: Grade (0-30):** \_\_\_\_\_

(Same key points as draft)