

# **M.S. in Statistics (Thesis) Academic Assessment Plan 2012-13**

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*Office of the Provost*

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*Institutional  
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## 2012-13 Academic Assessment Plan M.S. in Statistics

College of Liberal Arts and Sciences

### A. Mission

The Master of Science in Statistics degree program aims to train its students to understand and apply a broad range of statistical methods and to prepare them for further graduate study in statistics. Its students are expected to obtain a strong command of basic statistical theory and methods, and the ability to use this knowledge to understand, evaluate, and apply new methodologies for data collection and analysis. The Master of Science Program in Statistics supports the missions of the College of Liberal Arts and Sciences and the University of Florida by preparing its students for careers in a highly technological society in which science and decision-making are increasingly driven by a rapid expansion in the quantity and availability of data.

### B. Student Learning Outcomes and Assessment Measures

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge	1. Identify and select mathematical results and statistical models appropriate for an analysis.	First year written exam.	Campus
Knowledge	2. Use mathematical results to analyze statistical methods.	First year written exam.	Campus
Knowledge	3. Apply statistical methods and models to analyze data.	First year written exam.	Campus
Skills	4. Devise novel statistical methods or mathematical results, or a novel synthesis or application of existing methods and results.	Masters thesis.	Campus
Professional Behavior	5. Clearly explain, both orally and in writing, statistical methods and their application to data.	Written Masters thesis and oral defense.	Campus

## C. Research

To qualify for the Master of Science in Statistics degree, students must write a master's thesis under the supervision of a faculty member of the Department of Statistics. In the thesis, they must either develop novel statistical methods or mathematical results, or they must achieve a novel synthesis or application of existing methods and mathematical results. The contents of the thesis should be of sufficient quality to lead to a published paper in a statistics journal or conference proceedings.

## D. Assessment Timeline

Program M.S. in Statistics

College of Liberal Arts and Sciences

Assessment	Assessment 1
<b>SLOs</b>	
<b>Knowledge</b>	
#1	First year exam
#2	First year exam
#3	First year exam
<b>Create</b>	
#4	Masters thesis and oral defense
<b>Professional Behavior</b>	
#5	Masters thesis and oral defense

## E. Assessment Cycle

Assessment Cycle for:

Program M.S. in Statistics College of Liberal Arts and Sciences

Analysis and Interpretation:

\_\_\_\_\_May-June\_\_\_\_\_

Program Modifications:

Completed by \_\_August 31\_\_\_\_\_

Dissemination:

Completed by \_\_September 30\_\_\_\_\_

SLOs	Year	10-11	11-12	12-13	13-14	14-15	15-16
<b>Content Knowledge</b>							
#1		X	X	X	X	X	X
#2		X	X	X	X	X	X
#3		X	X	X	X	X	X
<b>Skills</b>							
#4		X	X	X	X	X	X
<b>Professional Behavior</b>							
#5		X	X	X	X	X	X

NOTE: No students were enrolled in this program 2010, 2011, 2012, or 2013. The assessment is scheduled annually in the event a student is enrolled.

## F. Measurement Tools

Overall performance in the required core courses and on the first year exam is assessed by the first year exam committee, consisting of the instructors of the core courses, the graduate coordinator, and the chair of the department. A “PhD pass” indicates a high level of achievement and a substantial probability of success in the PhD program; a “masters pass” indicates adequate progress towards a level of competence appropriate for a working statistician.

Performance on the Masters thesis and the oral defense are assessed by the student’s master’s committee. The rubric used to assess the defense is attached.

## G. Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Brett Presnell	Department Chair	<a href="mailto:presnell@ufl.edu">presnell@ufl.edu</a>	352 273 2989
James P. Hobert	Graduate Coordinator	<a href="mailto:jhobert@stat.ufl.edu">jhobert@stat.ufl.edu</a>	352 273 2990

## Figure 1: University of Florida Graduate/Professional Program Assessment Plan Review Rubric

Related resources are found at <http://www.aa.assessment.edu>

Program: M.S. in Statistics

Year: 2012-13

Component	Criterion	Rating			Comments
		Met	Partially Met	Not Met	
Mission Statement	Mission statement is articulated clearly.				
	The program mission clearly supports the College and University missions, and includes specific statements describing how it supports these missions.				
Student Learning Outcomes (SLOs) and Assessment Measures	SLOs are stated clearly.				
	SLOs focus on demonstration of student learning.				
	SLOs are measurable.				
	Measurements are appropriate for the SLO.				
Research	Research expectations for the program are clear, concise, and appropriate for the discipline.				
Assessment Map	The Assessment Map indicates the times in the program where the SLOs are assessed and measured.				
	The Assessment Map identifies the assessments used for each SLO.				
Assessment Cycle	The assessment cycle is clear.				
	All student learning outcomes are measured.				
	Data is collected at least once in the cycle.				
	The cycle includes a date or time period for data analysis and interpretation.				
	The cycle includes a date for planning improvement actions based on the data analysis.				
	The cycle includes a date for dissemination of results to the appropriate stakeholders.				

**Figure 1: University of Florida Graduate/Professional Program Assessment Plan Review Rubric, continued**

Component	Criterion	Rating			Comments
		Met	Partially Met	Not Met	
<b>Measurement Tools</b>	Measurement tools are described clearly and concisely.				
	Measurements are appropriate for the SLOs.				
	Methods and procedures reflect an appropriate balance of direct and indirect methods.				
	The report presents examples of at least one measurement tool.				
<b>Assessment Oversight</b>	Appropriate personnel (coordinator, committee, etc.) charged with assessment responsibilities are identified				