Ph.D. in Statistics Academic Assessment Plan 2012-13

College of Liberal Arts and Sciences
Brett Presnell
presnell@ufl.edu

Office of the Provost

University of Florida

Institutional Assessment

Continuous Quality Enhancement

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2012-13 Academic Assessment Plan Ph.D. in Statistics

College of Liberal Arts and Sciences

A. Mission

The mission of the Ph.D. Program in Statistics is to produce high quality statistical research while preparing its students for successful careers as statistical scientists in academia, government, and industry. Together with their faculty advisors, our students extend the boundaries of knowledge in the field by developing novel statistical theory and methods with applications in science, medicine, industry, and government. The Ph.D. Program in Statistics thus supports the missions of the College of Liberal Arts and Sciences and the University of Florida by directly addressing the needs of 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	Recognize and select appropriate results, models, and methods to solve a statistical problem	Part I Qualifying Exam.	Campus
Skills	Solve problems in statistical theory and analyze statistical methods mathematically and logically.	Part I Qualifying Exam.	Campus
Skills	Review, synthesize, and explain a body of statistical literature, and propose new areas for research.	Part II Qualifying Exam. Dissertation defense.	Campus
Skills	Create, elaborate, and apply new statistical theory and/or methodology.	Dissertation defense. Review of publications in peer-reviewed journals. Successful placement in academic or professional research positions.	Campus
Professional Behavior	Clearly and effectively present ideas in speech and writing concerning statistical theory, methodology, and applications.	Part II Qualifying Exam. Dissertation review and defense. Publication of results in peer-reviewed journals. Successful placement in academic or professional research positions.	Campus

C. Research

To qualify for the Ph.D. in Statistics, a student must write a dissertation under the supervision of a Ph.D. advisor, who must be a faculty member with Graduate Faculty Status in the Department of Statistics. In the dissertation, the student must accomplish at least one of the following: (i) develop novel statistical methodology that is worthy of publication in a peer-reviewed statistical methodology journal, or (ii) perform a mathematical analysis of an existing statistical technique that is worthy of publication in a peer-reviewed mathematical statistics journal. Students are prepared to perform research in the field of statistics through rigorous coursework that provides them with the skills needed to navigate the statistical literature and to develop new methods and analyses. The Ph.D. dissertation is not to be viewed as the final obstacle that a student must manage in order to earn the Ph.D. degree, but rather as the student's first major research project.

D. Assessment Timeline

Program Ph.D. in Statistics College of Liberal Arts and Sciences

Assessment SLOs	Part I Exam	Part II Exam	Dissertation defense	Review of placements
Knowledge				
#1	Aug/Jan			
Skills				
#2	Aug/Jan			
#3		Varies by student	Varies by student	
#4			Varies	August
Professional Behavior				
#5		Varies	Varies	August

E. Assessment Cycle

Assessment Cycle for:

Program Ph.D. in Statistics College of Liberal Arts and Sciences

Analysis and Interpretation: ___August_____

Program Modifications: Completed by _____October_____

Dissemination: Completed by ____November_____

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

F. Measurement Tools

The Part I Ph.D. Qualifying exam is given in August. This exam covers material from the courses STA 6246, STA 7466, STA 7467, STA 7249, and STA 7346. Students are required to earn at least a 3.0 average in these courses in order to take the Part I exam. Students who do not pass the exam on their first attempt are allowed to retake the exam in January. Students who do not pass the Part I exam after two attempts are suspended from the Ph.D. program.

The Part II exam is centered around the student's written literature review and research proposal. A committee of at least four faculty members, including members of the student's supervisory committee, reviews this document and an oral examination is given over its content. A rubric to be employed in this evaluation is shown in Figure 1.

The dissertation defense is an oral presentation by the student to the supervisory committee. It occurs roughly two weeks after a final draft of the dissertation has been made available to the members of the supervisory committee. During this presentation, the student is required to provide a detailed description of the results in the dissertation, and to answer any questions that members of the supervisory committee may have regarding any aspect of the dissertation

Job placement information is collected and maintained by the graduate coordinator.

G. Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Brett Presnell	Chair	presnell@ufl.edu	352-273-2989
James P Hobert	Graduate Coordinator	jhobert@stat.ufl.edu	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: Year:

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.				

University of Florida Graduate/Professional Program Assessment Plan Review Rubric, continued

Component	Criterion	Rating			Comments
		Met	Partially Met	Not Met	
Measurement Tools	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.				
Assessment Oversight	Appropriate personnel (coordinator, committee, etc.) charged with assessment responsibilities are identified				