

# **M.S. in Agronomy Academic Assessment Plan 2012-2013**

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*Continuous Quality  
Enhancement*

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## **2012-2013 Academic Assessment Plan for M.S. in Agronomy**

College of Agricultural and Life Sciences

### **A. Mission**

The mission of the Agronomy Department is to improve and sustain food production while conserving natural resources and promoting healthy and active lives by creating and disseminating knowledge in the plant sciences.

The Agronomy Department supports the missions of the college and university to serve the nation's and state's critical needs by contributing to a well-qualified and broadly diverse citizenry, leadership and workforce through graduate education and to expand our understanding of the natural world, the intellect and the senses through graduate student research.

## B. Student Learning Outcomes and Assessment Measures

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge	Demonstrate competence in core knowledge of the basic plant sciences with a deeper knowledge in a chosen specialization (Crop Genetics and Breeding; Crop Physiology and Ecology; Crop Nutrition and Management; Weed Science)	Annual assessment of student performance by the Supervisory Committee using a faculty-developed evaluation instrument; Evaluation of seminar presentations using a faculty-developed evaluation instrument; Evaluation of the thesis and final defense by the Supervisory Committee using a faculty-developed evaluation instrument.	Campus
Knowledge	Design and execute an innovative research plan and analyze, synthesize and interpret research results using appropriate experimental designs and statistical analyses.	Annual assessment of student performance by the Supervisory Committee using a faculty-developed evaluation instrument; Evaluation of seminar presentations using a faculty-developed evaluation instrument; Evaluation of the thesis and final defense by the Supervisory Committee using a faculty-developed evaluation instrument.	Campus
Knowledge	Demonstrate the ability to address and solve issues related to crop production and resource management in preparation for leadership roles in the discipline (in academia, government or the private sector).	Annual assessment of student performance by the Supervisory Committee using a faculty-developed evaluation instrument; Evaluation of seminar presentations using a faculty-developed evaluation instrument; Evaluation of the thesis and final defense by the Supervisory Committee using a faculty-developed evaluation instrument.	Campus
Skills	Demonstrate excellence in critical thinking, scientific writing, experimental techniques, data collection analysis and synthesis.	Annual assessment of student performance by the Supervisory Committee using a faculty-developed evaluation instrument; Evaluation of seminar presentations using a faculty-developed evaluation instrument; Evaluation of the thesis and final defense by the Supervisory Committee using a faculty-developed evaluation instrument.	Campus
Skills	Demonstrate excellence in oral and written communication and interpersonal relationships.	Annual assessment of student performance by the Supervisory Committee using a faculty-developed evaluation instrument; Evaluation of seminar presentations using a faculty-developed evaluation instrument; Evaluation of the thesis	Campus

		and final defense by the Supervisory Committee using a faculty-developed evaluation instrument.	
Professional Behavior	Professional and ethical conduct will be evident in all scholarly activities. Collegiality, cultural sensitivities, and ethical behaviors and practices will be demonstrated in the conduct of all scholarly activities including teaching, research, and outreach.	Adherence to the UF Honor Code is monitored. Professional behavior will be evaluated, by the major advisor and the Graduate Supervisory Committee during seminars, participation and presentations at professional meetings, scientific writings and in interpersonal relationships.	Campus

## C. Research

Most M.S. students in the Agronomy Department are in the M.S. thesis option where they complete a research project that is approved by the Supervisory Committee. By the end of the second semester of study, all M.S. thesis students will have written and submitted a comprehensive research proposal that is reviewed first by the Chair of the Supervisory Committee and then by all other members of the Supervisory Committee. The research proposal (plan of work) must meet the approval of the Supervisory Committee and provides rationale for conducting the research and details of the experiments to be conducted. The research proposal also includes a review of the literature on the topic to be researched and sets out objectives, hypotheses, materials and methods, and planned statistical analysis of the data that will be collected during individual experiments. Student research projects may be laboratory, greenhouse or field studies, or combinations of the three. Students gain competencies and skills for research through both coursework and the planning, implementation, analysis, and reporting (thesis) of independent research during their program of study. Quality of the research done by the student is assessed by careful review of the student's M.S. thesis and the defending of the research in an oral examination near the end of the M.S. program.

## D. Assessment Timeline

M.S. in Agronomy

College of Agricultural and Life Sciences

Assessment SLOs	Thesis & Thesis Defense	Seminar Presentation	Annual Evaluation	Observations
<b>Knowledge</b>				
#1	X	X	X	
#2	X	X	X	
#3	X	X	X	
<b>Skills</b>				
#4	X	X	X	
#5	X	X	X	
<b>Professional Behavior</b>				
#6				X

## E. Assessment Cycle

Assessment Cycle for:

M.S. in Agronomy

College of Agricultural and Life Sciences

Analysis and Interpretation:

May – June annually

Program Modifications:

Completed by June 30 of each academic year

Dissemination:

Completed June 30 of each academic year

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

## F. Measurement Tools

The supervisory committee for each student assesses performance using a number of measurement tools. An annual evaluation form is used to document progress in gaining the necessary knowledge and skills for success in the graduate program. Another evaluation is conducted when the student presents their required seminars and a final assessment is done of the thesis and final oral examination. Following is the final MS Examination Assessment form:

**Final M.S. Examination Assessment****Student** \_\_\_\_\_**Date** \_\_\_\_\_

	Exemplary	Satisfactory	Unsatisfactory
<b>Quality of the Research</b>			
Creativity			
Hypotheses appropriate			
Methods appropriate and adequate for testing of hypotheses			
Conclusions are defensible			
Scientific rigor			
Significance			
<b>Quality of the Thesis</b>			
Logical and understandable organization			
Appropriate amount of detail included			
Quality of scientific writing			
<b>Skills and Competencies Demonstrated</b>			
Professionalism			
Poise and confidence			
<b>Knowledge of the Specific Scientific Discipline</b>			
<b>Overall Assessment</b>			



## G. Assessment Oversight

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Jerry Bennett, Graduate Coordinator	Agronomy	jmbt@ufl.edu	352-294-1591
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