

**Department of Horticulture and Landscape Architecture**  
**Graduate Program Learning Outcomes Assessment**  
**M.S. and Ph.D. in Horticulture**

June 2008

**Mission Statement**

The mission of the graduate degree programs in Horticulture is to provide students with an innovative education focused on their area of interests in horticulture within which they may be prepared to achieve their professional goals as horticultural researchers, teachers, extension educators, and/or as industry, government, or other professionals.

**Objectives**

1. To prepare students to enter successfully into the many and varied professions of horticulture and/or its related fields.
2. To prepare students to be excellent researchers in horticultural science and/or related fields.

*Outcomes for each of the program's objectives are:*

1. To prepare students to enter the many and varied professions of horticulture and/or its related fields, the program provides students with:
  - a. the advanced knowledge and skills necessary to function as a creative and professional practitioner, communicator, educator, or investigator in the field of horticulture.
  - b. the intellectual means of identifying and assessing the interactions among the many issues associated with horticulture and society at large.
  - c. the skills and intellectual means of contributing new knowledge to the profession of horticulture.
2. To prepare students to be excellent researchers in horticultural science and/or related fields, the program provides students with:
  - a. an ability to design, conduct, analyze, and communicate a research plan and results.
  - b. the critical thinking skills and ability to question or re-evaluate current thinking and standards related to horticultural science.

- c. the skills to identify, locate, and apply knowledge discovered from horticultural science and related fields of study.
- d. the opportunities to develop and communicate scientific hypotheses and problem solving.

**Outcomes Assessment Plan**

*Data to be collected*

<b>Outcome</b>	<b>Data</b>	<b>Source</b>	<b>Collected</b>
1a. Advanced knowledge and skills necessary to function as a creative and professional practitioner, communicator, educator, or investigator in the field of horticulture	Grades in minimum course requirements for MS and PhD; thesis defense exam	Instructors teaching courses; progress evaluations; student's advisory committee	Annually; end of program
1b. Intellectual means of identifying and assessing the interactions among the many issues associated with horticulture and society at large	Grades in seminar (Hort 509 & 510); preliminary exam (PhD only); thesis defense exam	Faculty teaching course; student's advisory committee	Each semester; end of program and after course work for PhD students
1c. Skills and intellectual means of contributing new knowledge to the profession of horticulture	Final seminar (Hort 510); preliminary exam (PhD only); thesis defense exam; publications & presentations	Hort faculty; student's advisory committee; progress evaluations & student's major professor	End of program and after course work for PhD students; annually and for 3 years after graduation

<b>Outcome</b>	<b>Data</b>	<b>Source</b>	<b>Collected</b>
2a. Ability to design, conduct, analyze, and communicate a research plan and results	Grades in seminar (Hort 510); presentation of proposal to advisory committee; preliminary exam (PhD only); presentations at professional & stakeholder meetings; rubric completed at final defense exam	Faculty teaching course and Hort faculty; student's advisory committee; progress evaluations	When student takes seminar courses; annually; end of program
2b. Critical thinking skills and ability to question or re-evaluate current thinking and standards related to horticultural science	Grades in seminar (Hort 510); preliminary exam (PhD only); rubric completed at final defense exam	Faculty teaching course and Hort faculty; graduate student's advisory committee	When student takes seminar courses; end of program
2c. Skills to identify, locate, and apply knowledge discovered from horticultural science and related fields of study	Grades in seminar (Hort 510); preliminary exam (PhD only); rubric completed at final defense exam	Faculty teaching course and Hort faculty; graduate student's advisory committee	When student takes seminar courses; end of program
2d. Opportunities to develop and communicate scientific hypotheses and problem solving	Grades in seminar (Hort 510); results of preliminary exam (PhD only); rubric completed at final defense exam; publications & presentations	Faculty teaching course and Hort faculty; student's advisory committee; progress evaluations & student's major professor	When student takes seminar courses; end of program; annually and for 3 years after graduation

Summary: Data to be collected

- Course grades in minimum course requirements for M.S. and Ph.D. degrees
- Doctoral preliminary exam (Ph.D. only)
- Rubric to be filled out by each faculty on the student's graduate advisory committee at the thesis defense exam (see attached)

Summary: When data are to be collected

*Data to be collected individually when available for each student*

- Grades in initial and final Hort 510 courses
- Results of preliminary exam (Ph.D. only)
- Rubric to be filled out at student's final defense exam

*Data to be collected each semester*

- Grades in minimum course requirements for M.S. and Ph.D. degrees will be submitted to Horticulture Graduate Coordinator at the end of each semester for review by the Horticulture Graduate Steering Committee.
- Grades in Hort 509

*Data to be collected annually*

- Student's progress evaluations

Summary: Responsible for data collection, analysis and reporting

The Departmental Academic Coordinator will provide grade and final exam rubric data to the Horticulture Graduate Coordinator, who in consultation with the Horticulture Graduate Steering Committee will evaluate and prepare the necessary reports on an annual basis.

**Thesis Defense Assessment**  
**Master of Science or Doctor of Philosophy in Horticulture**

Candidate: \_\_\_\_\_ Date: \_\_\_\_\_

Title of thesis: \_\_\_\_\_

	<i>Poor</i>	<i>Competent</i>	<i>Excellent</i>
1. Reviews the literature in a manner that demonstrates comprehensive knowledge of previous and current research in the field of study			
2. Identifies a viable question within the field of study and poses a worthwhile hypothesis or problem related to the question			
3. Discusses support for hypothesis or solution to problem in a manner that effectively documents the contribution of research to area of study			
4. Designs and implements appropriate research experiments to test hypothesis or solve problem			
5. Analyzes and interprets research data appropriately			
6. Demonstrates sufficient knowledge of appropriate concepts, theories, and emerging methodologies in horticultural science			
7. Demonstrates qualities of independent, self-motivated research with the ability to recognize problems in the field of study and formulate solution to those problems			
8. Demonstrates the ability to effectively communicate at different levels results of research in written, graphic, and verbal modes			

Comments: