

## **Program Outcomes Assessment Model**

Department of Horticulture and Landscape Architecture

Oklahoma State University, Stillwater, OK

### Programs Assessed

M.Ag., M.S., Ph.D. (Crop Science, Environmental Science, Food Science, Plant Science)

### Program Description and Departmental Mission

The Department of Horticulture & LA offers graduate programs leading to a Master of Science in Horticulture and a Master of Agriculture specializing in Horticulture. The Department also offers a Ph.D. specializing in Horticulture through participation in the Crop Science, Environmental Science, Food Science, and Plant Science multidisciplinary programs. The Master of Agriculture is a terminal degree emphasizing a broad base of experience. The Master of Science is a nonterminal degree offering students the opportunity to specialize in horticultural commodity areas. The Ph.D. is a terminal degree offering students the opportunity to become highly specialized in one area of horticulture. Research programs usually have a disciplinary focus such as nutrition, stress physiology, postharvest physiology, low input systems, crop culture, water quality and conservation, integrated pest management, or growth and development. Graduate student activities are reflected in the departmental mission: to provide research and leadership in the development of new technologies for the horticulture industry, provide educational opportunities that will enable individuals to enter the profession of horticulture, and provide service, training and technology transfer of horticultural information to the general public and commercial sectors.

### Student Outcomes

- Each student will demonstrate an understanding of the applications and principles of horticulture and related disciplines, and familiarity with the literature in the student's specialty by passing an oral and/or written comprehensive examination.
- Each student will demonstrate the principles of scientific investigation by their ability to define, analyze and test a hypothesis related to a horticultural problem through successfully completing a thesis, formal report or creative component.
- Each student will demonstrate an ability to effectively communicate degree program outcomes with an emphasis on peer-reviewed forums. Formats may include information delivered through electronic media, presentation to an interest group, manuscripts based on the student's thesis research suitable for professional publication as a refereed journal article or experiment station research bulletin, or a professional presentation (oral or poster) at a professional society or disciplinary meeting.

### Direct Assessment Methods

***Internal reviews.*** The Graduate Assessment Coordinator will tally the number of students who enter the graduate program and the number of students that successfully complete the comprehensive exams, and thesis, formal or informal report, or creative component. In addition, the number of refereed journal articles, experiment station bulletins, professional papers, and professional presentations by the graduate students will be tabulated. The results of these quantitative measurements for all graduate students will be summarized annually by the graduate coordinator, reported to the faculty, and utilized for program improvement.

### Indirect Assessment Methods

***Exit interviews.*** The exit interview will provide students with an opportunity to furnish a qualitative evaluation of their program and their perception of the degree of preparedness for a job or subsequent graduate program. All graduate students will be asked to fill out a standard questionnaire during their last semester of enrollment. If the student consents, an appointment will be made at that time for a subsequent meeting with the Department Head to verbally follow-up on the questionnaire and provide a confidential forum to provide additional information not to be included in the exit interview record. Questionnaire responses will be made available to graduate advisers each semester to aid in program improvement.

***External review.*** The Department periodically undergoes an external review by the Cooperative State Research, Education and Extension Service (CSREES), a unit of the United States Department of Agriculture. This is a comprehensive review of the entire department. The emphasis of this review relative to graduate programs concerns research facilities, research and other creative projects of graduate students, and course availability and quality. The review team provides guidance to the faculty and administration on program strengths and weaknesses. Both faculty and administration prepare a formal response to the review team recommendations that includes specific goals and implementation plans for program improvement. The last CSREES review took place in 1995.

***Student meetings.*** The Graduate Coordinator will meet periodically with all graduate students to provide information on program assessment and to solicit suggestions to improve the assessment process and the degree program. Discussions will include the objectives and mechanics of assessment, emphasizing the role of graduate students.

***Alumni surveys.*** The Department of Horticulture & LA will continue to participate in alumni surveys coordinated by the Office of University Assessment. Both universal and department-

generated questions will be included to generate comparative and context-specific assessment information.

### Integration of Assessment Results with Program Improvement

In addition to integration methods listed under each section, assessment results will be used for program improvement as follows. Assessment reports will be presented to faculty on an annual basis. The Graduate Committee and Department Head will utilize assessment information during strategic planning meetings to strengthen graduate programs. Results are also taken into account when interdepartmental planning sessions take place. For example, steering committee participation includes opportunities for the development and refinement of core and supporting curricula for multidisciplinary graduate programs.

### Costs

The estimated cost of graduate assessment is \$3,000 annually for faculty (data tracking, analysis, and planning) and staff (information processing and dissemination) participation. An additional \$1500 to \$2000 is incurred for CSREES external review.