Ph.D. in Food Science and Human Nutrition Academic Assessment Plan 2012-2013

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University of Florida

Institutional Assessment

Continuous Quality Enhancement

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2012-2013 Academic Assessment Plan for Ph.D. in Food Science and Human Nutrition

College of Agricultural and Life Sciences

A. Mission

The mission of the Food Science and Human Nutrition Department is to provide progressive and effective programs in teaching, research, and extension which meet the needs of the citizens of Florida as well as benefit the nation and the global population. This mission is accomplished by faculty and staff through resident and distance instruction, research, and extension.

As part of this mission, the Department is committed to education and training of a diverse graduate student body who go on to develop a lifelong desire for learning and who become productive individuals dedicated to the improvement of the health and well-being of society. In addition, the Department supports the discovery and translation of knowledge through rigorous research that underscores the value of food and nutrition to the prevention and treatment of common diseases and disorders in people around the world.

The Food Science and Human Nutrition Department graduate program supports the missions of the College and University to serve the state's and nation's critical needs by contributing a well-qualified and broadly diverse citizenry prepared to lead and participate in the workforce through graduate education and to expand our understanding of the natural world, the intellect of the senses through graduate student research.

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge	Explain and apply components and interactions of food and health.	1) Evaluation of the student's program of study by the Supervisory Committee using a faculty-developed rubric; 2) Evaluation by the Supervisory Committee during the written and oral Comprehensive Examination and during the dissertation defense and by the faculty during the final seminar using a faculty- developed rubric.	Campus
Skills	Use critical thinking to evaluate research design and experiments	1) Evaluation of the dissertation proposal and final dissertation by	Campus

B. Student Learning Outcomes and Assessment Measures

	and the scientific literature.	the Supervisory Committee using a faculty-developed rubric; 2) Evaluation of during the Comprehensive Examination and the final seminar by the Supervisory Committee using a faculty-developed rubric.	
Skills	Identify appropriate research methodologies, execute a research plan and interpret results for the discovery of new information.	1) Evaluation of the dissertation proposal, research performance and quality of dissertation by the Supervisory Committee using a faculty-developed rubric; 2) Evaluation during the Comprehensive Examination and dissertation defense as well as the final seminar by the Supervisory Committee using a faculty- developed rubric.	Campus
Professional Behavior	Interact with professional peers, faculty, and staff with honesty, ethical behavior, respect, fellowship, and cooperation.	1) Adherence to the University's Student Honor Code and Student Conduct Code; 2) Annual written evaluation of performance and professional attitude by a faculty- developed rubric; 3) Observation and feedback by faculty and staff to the student's supervisory committee regarding the performance of class activities, the Comprehensive Examination and dissertation defense, laboratory activities and participation in professional societies using a faculty-developed rubric.	Campus

C. Research

Doctoral students are educated and trained in the core areas of Food Science, namely food chemistry, food processing and engineering, and food microbiology and safety. Intertwined among this core are related disciplines that students typically encounter, such as biotechnology, toxicology, sensory evaluation, quality assurance, and nutrition. Students obtain extensive theory, application, and hands-on experience with laboratory instrumentation and pilot plant equipment in their research projects.

All students have a major advisor identified at the time of admission. The major advisor serves as the student's program mentor and coordinates the student's research activities as well as the selection of coursework, much of which is pertinent to the dissertation research. The major advisor guides the student in selecting the research topic and provides the resources needed to complete the work. In addition, the major advisor assists the student in selecting the other members of the supervisory committee, guides the student in preparing the research proposal (which is defended to the supervisory committee), coordinates the comprehensive examination, oversees the preparation of the final dissertation, and arranges for the final defense.

In the final semester, the student makes a formal presentation of their dissertation research findings in the department's regularly scheduled seminar program. Students also present their research findings at national conferences and often at international meetings. At the end, students are able to create and frame a research idea, formulate a hypothesis and specific aims, perform the experiments, collect and tabulate the data, apply the appropriate statistical analyses, and critically discuss the findings. The importance and significance of the research is documented by publishing the work in peer-reviewed journals.

D. Assessment Timeline

Assessment SLOs	Review of Program of Study	Comprehensive Exam	Dissertation	Annual Evaluation
Knowledge				
#1	Х	Х		
Skills				
#2		Х	Х	
#3		Х	Х	
Professional Behavior				
#4				Х

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E. Assessment Cycle

Assessment Cycle for: <u>Ph.D. in Food Science and Human Nutrition</u> Analysis and Interpretation:

Program Modifications:

Dissemination:

<u>College of Agricultural and Life Sciences</u> Yearly in August/September

Completed by September each year

Completed by September each year

Year	12-13	13-14	14-15	15-16
SLOs				
Content Knowledge				
#1	Х	Х	Х	Х
Skills				
#2	Х	Х	Х	Х
#3	Х	Х	Х	Х
Professional Behavior				
#4	Х	Х	Х	Х

F. Measurement Tools

All assessments and scoring rubrics are developed by faculty. Depending upon the area of student evaluation, the appropriate rubric is completed by one or more faculty. For example, the student's Research Proposal would be evaluated by each member of the supervisory committee whereas a student who served as a Teaching Assistant would be reviewed primarily by the faculty under whom the student had assisted. Assessment results are entered into a student database and hard copies are provided to the major advisor and the student's permanent file (maintained in the department's main office).

- <u>Plan of Coursework:</u> Students must submit a list of courses that satisfy the department's requirements for core courses depending upon the program emphasis, plus appropriate electives to meet the minimum course credit requirements of the department as well as the requirements of the Graduate School. The form is due by the end of the first year and must be signed by each committee member as well as the Graduate Coordinator. Any revisions must be approved by the committee and Graduate Coordinator. The Plan is updated with course grades each semester. SLO 1 is assessed yearly from this Plan.
- <u>Semester Evaluations</u>: Students are evaluated each semester on overall performance by their major advisor consistent with SLO's 1, 3, and 4 to assure that the student is making satisfactory progress towards completion of their degree program. Students who served as a Teaching Assistant for that semester are evaluated further in that effort, and this assessment is carried out primarily by the faculty under whom the student assisted. SLO's 1 and 4 are evaluated at this time. Students who had enrolled in Supervised Teaching, which demands duties beyond those of our regular Teaching Assistants, are evaluated by the faculty instructor of the course as well as the students in the class. SLO's 1 and 4 are evaluated at this time.

- <u>Research Proposal:</u> Students must prepare a written research proposal and schedule an oral presentation of the proposal to their committee between the first and second year. The presentation is formally announced by post and attendance is open to everyone. SLO's 1, 2, and 3, are assessed at this time by all members of the committee. The Evaluation Guide for the dissertation proposal is provided as an example.
- <u>Qualifying Examination</u>: Students must take their Comprehensive examinations when all or most of the coursework (Plan of Coursework) has been completed. The first part is a written examination and if passed by agreement of all committee members, the second part, or oral examination is scheduled and the student must receive a passing grade from all committee members. SLO's 1, 2, 3, and 4 are assessed by the committee at this time to determine if students are making satisfactory progress.
- <u>Written Dissertation and Oral Defense:</u> An assessment similar to that used for evaluation of the research proposal is used by the committee for reviewing the dissertation and its defense. SLO's 1, 2, 3, and 4 are ascertained at this time.

G. Assessment Oversight

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