M.S. in Food Science and Human Nutrition Academic Assessment Plan 2012-2013

College of Agricultural and Life Sciences
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Office of the Provost

University of Florida

Institutional Assessment

Continuous Quality Enhancement

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2012-2013 Academic Assessment Plan for M.S. 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.

B. Student Learning Outcomes and Assessment Measures

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 Final Examination using a faculty-developed rubric.	Campus
Skills	Use critical thinking to evaluate research design and experiments and the scientific literature.	1) Evaluation of the thesis or project proposal and thesis or project document by the Supervisory Committee using a faculty-developed rubric; 2) Evaluation of the thesis defense or Final Examination by the Supervisory Committee and	Campus

		presentation of a seminar 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 thesis or project proposal, research performance and quality of thesis or project document by the Supervisory Committee using a faculty-developed rubric; 2) Evaluation during the thesis or project defense or Final Examination 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 Final Examination, laboratory activities and participation in professional societies using a faculty-developed rubric.	Campus

C. Research

M.S. students are educated and trained in the core areas of Food Science or Nutritional Sciences. The Food Science emphasis includes 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.

The Nutritional Sciences emphasis includes the core areas of the macro- and micro-nutrients and biochemical metabolism plus a formal internship for students in the Dietetics program. Typical research projects involve use of cell cultures, animal models, and human subjects.

Almost 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 thesis 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), oversees the preparation of the final thesis, and arranges for the final defense.

In the final semester, the student makes a formal presentation of their thesis research findings in the department's regularly scheduled seminar program. Students also present their research findings primarily at national conferences. 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

M.S. in Food Science and Human Nutrition College of Agricultural and Life Sciences

Assessment SLOs	Program of Study Review	Final Examination	Thesis	Annual Evaluation
Knowledge				
#1	X	X		
Skills				
#2			X	
#3			X	
Professional Behavior				
#4				X

E. Assessment Cycle

Assessment Cycle for:
M.S. in Food Science and Human Nutrition — College of Agricultural and Life Sciences
Analysis and Interpretation: August and September, each year
Program Modifications: Completed by September, each year
Dissemination: Completed by September, each year

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

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).

- Plan of Coursework: 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.

- Semester Evaluations: 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.

- Research Proposal: 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 research proposal is provided as an example.

- Written Thesis and Oral Defense: An assessment similar to that used for evaluation of the Research proposal is used by the Committee for reviewing the thesis and its defense. SLO's 1, 2, 3, and 4 are ascertained at this time.

G. Assessment Oversight

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