

Framingham State University

Program Assessment Plan for MS – Food and Nutrition with a Specialization in Food Science and Nutrition Science

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1) PROGRAM MISSION STATEMENT (and goals)

The goal of this program is to provide graduate education in food science by incorporating relevant courses and labs, practical training, and laboratory research or an industrial practicum. Students will gain scientific knowledge and develop technical skills relevant to the food industry by either engaging in laboratory research culminating in an MS thesis or engaging in a food industrial practicum if pursuing the non-thesis option.

2) PROGRAM LEARNING OBJECTIVES

1. Demonstrate knowledge of fundamental concepts in food science.
2. Evaluate and analyze realistic situations in the food industry.
3. Produce high quality written reports and present their contents effectively
4. Demonstrate the ability to thoroughly review scientific literature
5. Perform high quality research in specific areas relevant to food processing technology, food engineering, or food biochemistry (MS thesis option), or demonstrate knowledge and technical skills developed through a laboratory practicum (non-thesis option).

3) LEARNING OPPORTUNITIES Share with Students and Advisors

Learning Outcome	Core Courses				Concentration Courses					Elective Course
	FDSC 911	FDSC 921 or FDSC 960	NUTR 874	NUTR 903	FDSC 808	FDSC 815	CHEM 821	FDSC 813	FDSC 805	
demonstrate knowledge of fundamental concepts in functional foods	I	E	R	R					R	R
evaluate complex situations in the food industry and provide appropriate solutions	I	E			R	R		R	R	
produce high quality written reports and present their contents effectively	I	E			R	R	R	R	R	
demonstrate the ability to thoroughly review scientific literature	I	E					R			R
perform high quality research in specific areas relevant to functional foods	I	E							R	

I: Introductory, R: Reinforce, E: Emphasize

Course Code Key

FDSC 805 Food Analysis

NUTR 874 Human Nutrition Science

NUTR 903 Advanced Nutrition and Metabolism

FDSC 808 Food Chemistry

FDSC 815 Food Engineering and Processing

FDSC 813 Food Safety and Microbiology

CHEM 821 Instrumental Analysis

FDSC 911 Research and Seminar in Food Science/Nutritional Biochemistry

FDSC 921 Laboratory Practicum

FDSC 960 Thesis in Food Science/Nutritional Biochemistry

Elective Course (800 or 900 level graduate level elective course)

4) ASSESSMENT METHODS AND TIMELINE

Academic Years	Outcome(s)	Course(s)	Assessment Evidence (direct/indirect)	Assessment Method	Responsibility
WHEN	WHICH outcome(s) will you examine in each period (Use number)?	WHERE will you look for evidence of student learning (i.e., list course(s) that will generate evidence for each objective.	WHAT student work or other evidence will you examine in order to assess each objective?	HOW will you look at the evidence; what means will you use to analyze the evidence collected for each objective	WHO will oversee collecting, analyzing, reporting, results? List names or titles.
Year 1 (21/22)	PLO1, PLO2, PLO3, PLO4, PLO5 (COLLECT)	FDSC 921, FDSC 960, and Oral Comprehensive Examination (PLO1-5)	1) Thesis (FDSC 960) 2) Lab performance and final report (FDSC 921) 3) Oral Comprehensive Examination	1) Evaluate thesis (FDSC 960) for PLOs 1-5. 2) Evaluate written report (FDSC 921) for PLOs 1-5 3) Oral Comprehensive Examination for PLOs 1-3.	Collection: Faculty supervising FDSC 921 and 960
Year 2 (22/23)	PLO1, PLO2, PLO3, PLO4, PLO5 (COLLECT)	FDSC 921, FDSC 960, and Oral Comprehensive Examination (PLO1-5)	1) Thesis (FDSC 960) 2) Lab performance and final report (FDSC 921) 3) Oral Comprehensive Examination	1) Evaluate thesis (FDSC 960) for PLOs 1-5. 2) Evaluate written report (FDSC 921) for PLOs 1-5 3) Oral Comprehensive Examination for PLOs 1-3.	Collection: Faculty supervising FDSC 921 and 960
Year 3 (23/24)	PLO1, PLO2, PLO3, PLO4, PLO5 (COLLECT)	FDSC 921, FDSC 960, and Oral Comprehensive Examination (PLO1-5)	1) Thesis (FDSC 960) 2) Lab performance and final report (FDSC 921) 3) Oral Comprehensive Examination	1) Evaluate thesis (FDSC 960) for PLOs 1-5. 2) Evaluate written report (FDSC 921) for PLOs 1-5 3) Oral Comprehensive Examination for PLOs 1-3.	Collection: Faculty supervising FDSC 921 and 960

Year 4 (24/25)	PLO1, PLO2, PLO3, PLO4, PLO5 (COLLECT)	FDSC 921, FDSC 960, and Oral Comprehensive Examination (PLO1-5)	1) Thesis (FDSC 960) 2) Lab performance and final report (FDSC 921) 3) Oral Comprehensive Examination	1) Evaluate thesis (FDSC 960) for PLOs 1-5. 2) Evaluate written report (FDSC 921) for PLOs 1-5 3) Oral Comprehensive Examination for PLOs 1-3.	Collection: Faculty supervising FDSC 921 and 960
Year 5 (25/26)	PLO1, PLO2, PLO3, PLO4, PLO5 (COLLECT) PLO1, PLO2, PLO3, PLO4, PLO5 collected from previous years (ASSESS)	FDSC 921, FDSC 960, and Oral Comprehensive Examination (PLO1-5)	1) Thesis (FDSC 960) 2) Lab performance and final report (FDSC 921) 3) Oral Comprehensive Examination	1) Evaluate thesis (FDSC 960) for PLOs 1-5. 2) Evaluate written report (FDSC 921) for PLOs 1-5 3) Oral Comprehensive Examination for PLOs 1-3.	Collection: Faculty supervising FDSC 921 and 960 Analysis: Program Coordinator and Advisor Report: Program Coordinator

Program Size and Sampling Technique

- a. State the number of students in the program or the number who graduate each year.

Approximately two students graduate from the program per year.

- b. Describe the sampling technique to be used.

Data will be collected for all students in the graduate program each academic year and evaluated in aggregate as indicated in the assessment timeline.

4) PLAN FOR ANALYZING RESULTS

- List who is responsible for distributing results and who will receive results?

The results will be shared with all full-time tenure/tenure track faculty and will be stored in the program coordinator's office.

- State how and at which forums discussion of results will take place.

Discussion of the results will take place during the department's annual retreat.

5) **DISTRIBUTION.** The program will distribute or publish these items in the following ways:

ITEM	Distribution Method					
	FSU Catalog (provide section title)	Website (provide URL)	Annual Reports	Brochures	Course Syllabi	Other (please describe, e.g. department meeting, advising session)
Program Mission	X	X (https://www.framingham.edu/academics/graduate-studies/graduate-degree-programs/master-of-science-food-and-nutrition/master-of-science-concentration-in-food-and-nutrition-specialization-in-food-science-and-nutrition-science)	X			Department meetings and annual retreat
Program Learning Objectives		X (https://www.framingham.edu/academics/graduate-studies/graduate-degree-programs/master-of-science-food-and-nutrition/learning-outcomes)	X			Department meetings and annual retreat
Learning Opportunities (Curriculum Map)		X (https://www.framingham.edu/Assets/uploads/academics/graduate-studies/documents/msj-fsns-curriculummap.pdf)	X			Department meetings and annual retreat
Assessment Plan		X (https://www.framingham.edu/about-fsu/office-of-assessment/graduate-assessment/graduate-program-assessment)	X			Department meetings and annual retreat

Attach any rubrics or instrumentation that you plan to use for assessment of Program Learning Objectives

Critique Your Plan

Use the following rubric to review your assessment plan:

¹ If you have questions or need assistance, please contact Dr. Mark Nicholas, Director of Assessment at mmicholas1@framingham.edu or 508-626-4670

¹ Accredited programs can provide supplemental documents that indicate the answers to these questions as long as specific page references are provided in each cell of the tables in this form. When the answers are not accessible in that way, please cut and paste into your assessment plan.