

## Food and Nutritional Sciences, MS

College of Agriculture and Environmental Science

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The Master of Science in Food and Nutritional Sciences is designed to develop the basic knowledge and skills necessary to undertake research in Food and Nutritional Sciences and other related areas. It also develops competencies to work as food and nutrition specialists in education, or with other community nutrition agencies and food industries. The program also develops theoretical and experimental competencies necessary to pursue additional graduate studies or obtain professional degrees.

### **Additional Admission Requirements**

1. Unconditional admission requires an earned baccalaureate degree in food and nutrition or related field from an accredited institution
2. Applicants without the following background courses or their equivalent will be required to take them as prerequisites: FCS 245: Introduction to Food Science, FCS 345: Food Chemistry, FCS 357: Introduction to Human Nutrition, FCS 457: Advanced Nutrition
3. Resume

### **Program Outcomes:**

1. Upon completion of their coursework, students will accurately communicate in writing their knowledge of advanced concepts and principles related to food and nutritional sciences.
2. Upon completion of their coursework, students will effectively express in an oral presentation their knowledge of food and nutritional sciences concepts, principles and trends.
3. Upon completion of core courses, students will read and analyze scholarly literature in food and nutritional sciences for accuracy of research techniques and contributions to the discipline.
4. Upon completion of the thesis option, students will develop research questions, hypotheses and research methodology to address a problem in the field of food and nutritional sciences.
5. Upon completion of the program, students will identify and apply appropriate theories to address food and nutrition related issues impacting society.

### **Degree Requirements**

Total credit hours: 30

- Take Core courses (10 credits): FCS 711, 730, 735, 789

#### Thesis option:

- Take 6 credits: CHEM 651; ABM 705
- Electives: Select 8 credit hours from FCS or related disciplines with approval of advisor
- Thesis (FCS 797: 6 credits)
- Pass thesis defense
- Pass comprehensive exam

#### Non-thesis Option:

- Take 6 credits: CHEM 651; ABM 705
- Electives: Select 11 credit hours from FCS or related disciplines with approval of advisor
- Practicum (FCS 784: 3 credits)
- Pass comprehensive exam

## Family and Consumer Sciences Department

### Food and Nutritional Sciences, MS

Levels: Graduate

#### FCS Core Courses (10 Credits)

##### FCS 711 – Re Design Meth in Fam Con Sci

This is an introductory course in research methodology to include formulation of a research problem, design, sampling, data collection, measurement, data analysis, interpretation, and writing the research report. Students will examine current research in Child, Family, Food & Nutrition and Consumer Sciences. Prerequisites: Graduate Standing. (F;S;SS)

3.000 Credit hours  
3.000 Lecture hours

##### FCS 730 – Nutrition and Disease

Significance of nutrition in health and disease. Consideration of: (1) the methods of appraisal of human nutritional status to include clinical, dietary, biochemical, and anthropometric techniques; (2) various biochemical parameters used to diagnose and treat disorders; and (3) the role of diet as a therapeutic tool. Prerequisite: FCS 630 or equivalent.

3.000 Credit hours  
3.000 Lecture hours

##### FCS 735 – Experimental Foods

Objective and subjective evaluation of food, development and testing of recipes, and experimentation with food. Prerequisite: HEFS-236 or equivalent.

4.000 Credit hours  
4.000 Lecture hours

##### FCS 789 – Graduate Seminar

1.000 Credit hours  
1.000 Lecture hours

#### Required Courses (6 Credits)

##### CHEM 651 - General Biochemistry

This is a study of modern biochemistry. The course emphasizes chemical kinetics and energetics associated with biological reactions and includes a study of carbo- hydrates, lipids, proteins, vitamins, nucleic acids, hormones, photosynthesis, and respiration. Prerequisites: CHEM 431, 442 and 451. (S)

3.000 Credit hours  
3.000 Lecture hours  
Chemistry Department

##### ABM 705 - Statistical Meth for Agri

Advanced topics on analysis of variance, regression, correlation, multistage sampling and probability are covered in depth. Prerequisite: None. (F;S;SS)

3.000 Credit hours  
3.000 Lecture hours  
Agribus, App Econ & Agrisci Ed Department