
Food Science & Safety (FSS)

FSS 005 Food Safety Mgmt/App to Prod Systems (3)

Class Hours: 54 Lecture

FSS 005 is an introduction to food safety principles with an overview of career opportunities, food safety technologies, environmental sources and transport mechanisms of food-borne pathogens, and the role of site conditions. An overview Good Agricultural Practices for farm production is included. Specific guidelines for key agricultural commodities are presented as well as regulations and monitoring Standard Operating Procedures (SOPs) and guidelines for food safety. Field trips may be required.

FSS 010 Food Chemistry (3)

Class Hours: 36 Lecture | 54 Laboratory

FSS 010 will provide an overview of the nutritional, chemical and physical properties of the major food constituents (e.g., proteins, lipids, carbohydrates, water, minerals). The importance of organic chemistry and biochemistry in food is explored. Laboratory covers methods of food analysis.

FSS 015 Microbiology of Foods (4)

Class Hours: 54 Lecture | 54 Laboratory

Advisory(s): BIO 038 and CHEM 002A

FSS 015 is a lecture and laboratory course designed to prepare students for work in the food processing sector to include the use of material and equipment and corresponding microbiological laboratory skills. The technological aspects of food and water operations is taught with a focus on sanitary inspection procedures and quality control principles. The isolation and identification of micro-organisms by cultural and biochemical techniques are taught.

FSS 020 Agriculture Laws and Regulations (2)

Class Hours: 36 Lecture

FSS 020 provides an introduction to the laws and regulations governing the agricultural industry with a focus on food safety. Topics include an overview of government agencies with responsibility to create and enforce laws and regulations to ensure a safe and abundant food supply, public and worker safety, insurance, labor and agriculture organizations, and environmental issues.

FSS 025 Principles of Hazard Analysis & Critical (3)

Class Hours: 54 Lecture

FSS 025 provides a review of Hazard Analysis and Critical Control Points (HACCP) food safety management systems as a systematic and science-based approach to food safety through the identification, monitoring and corrective control of critical hazards in food production facilities. The review will include the corresponding verification and validation processes necessary to prove that a food safety management system is scientifically valid by gathering evidence to assure that safe food products will be produced once the management system is implemented.

FSS 030 Audits, Prev Controls & Prod Safety (3)

Class Hours: 54 Lecture

FSS 030 will provide an introduction to food safety plans with applications to preventive controls for human foods and the produce safety rule. The knowledge and skills necessary to conduct an effective audit of food safety management systems will be developed to evaluate regulatory compliance, detect deficiencies, and implement corrective and preventative actions.

FSS 035 Principles of Food Science (3)

Class Hours: 54 Lecture

FSS 035 provides an introduction to the fundamentals of food science with an overview of food safety, technology and industry standards. Students will gain an understanding of the principles of food processing, preparation and storage. Food safety challenges and regulations will be reviewed.

FSS 040 Facility Food Safety Management**(3)***Class Hours: 54 Lecture**Advisory(s): FSS 025*

FSS 040 course topics include the development and management of food safety programs with focus on evaluation, documentation, pathogen tracking and crisis management. An introduction to Good Manufacturing Processes (GMPs) for facility management is provided. Specific application is made to manufacturing and processing facilities with emphasis on temperature control/cold chain, evaluation of alternative risk reduction strategies, HACCP principles, employee training and the audit process.