

FOOD SCIENCE • FDSC

- 1049 Science of Foods (2) F** Concepts and principles related to selection, preparation, processing, preservation, distribution, and use of foods.
- 2000 Fundamentals of Food Science (3) S** Prereq.: BIOL 1201 and CHEM 1201 or permission of instructor. Introduction to scientific principles in chemistry of food constituents, new product development, food preservation, processing, packaging, and safety.
- 3000 Food Safety (3) F** Prereq.: BIOL 1201 and CHEM 1201 or permission of instructor. Basic concepts of food safety including: introduction into food safety; extensive examination of causative agents responsible for food borne illness; and food borne illness case studies.
- 3900 Food Science Research (1-3)** Prereq.: permission of department. May be taken for a max. of 6 sem. hrs. of credit. Student outlines and executes project and prepares a written report; problems related to processing, quality control, safety, and nutritional evaluation of food stuffs.
- 3999 Food Science and Technology Seminar (1) F,S** Prereq.: permission of department. May be taken for a max. of 2 sem. hrs. credit. Scientific seminar preparation and presentations on selected topics in food science and technology.
- 4005 Food Engineering Systems (3) S-O** Prereq.: PHYS 2001 and MATH 1441 or equivalent. 2 hrs. lecture; 3 hrs. lab. Application of engineering principles to various unit operations in food processing.
- 4040 Quality Assurance in the Food Industry (4) S-E** See DARY 4040.
- 4050 Food Composition and Analysis (4) S** Prereq.: FDSC 4060 and CHEM 2060 or 2261; or equivalent. 3 hrs. lecture; 3 hrs. lab. Principles of official and acceptable chemical and physical methods used in food analysis; application of these methods to examination of raw and processed foods.
- 4060 Food Chemistry (4) F** Prereq.: BIOL 2083 and either CHEM 2060 or CHEM 2261; or equivalent. 3 hrs. lecture; 3 hrs. lab. Chemistry of food components; reactions occurring during processing and storage.
- 4070 Food Laws, Standards, and Regulations (2) F** Prereq.: consent of instructor. Federal, state, and city food laws, and how they regulate manufacture, distribution, and use of foods, additives and regulated products.
- 4075 Food Preservation (3) F** Prereq.: CHEM 2060 or 2262 or equivalent, BIOL 2051, and at least 3 sem. hrs. in any food science course; or consent of instructor. 2 hrs. lecture; 3 hrs. lab. Microbiology and biochemistry of food spoilage; engineering techniques of food preservation and food plant sanitation; methods of food preservation.
- 4076 Food Product Development (3) S** Prereq.: FDSC 4060 and 4095. 2 hrs. lecture; 3 hrs. lab. Capstone course that food science students should take in their last spring semester of their program, after having taken a majority of their food science courses. Development of new food products; marketing, package design, and other aspects of product development.
- 4086 Seafood Processing (3) S** Prereq.: BIOL 1201 and CHEM 1201 or permission of instructor. Examination of all aspects of seafood processing including: history and economic importance of the seafood processing industry; resources; processing techniques (freezing, canning, drying, salting, and pickling); processing by species; storage and distribution; and regulatory and food safety considerations.
- 4095 Principles of Sensory Evaluation of Foods (4) F** Prereq.: EXST 2201 or equivalent. 3 hrs. lecture; 3 hrs. lab. Theory and current practices used to evoke, measure, analyze, and interpret reactions to those characteristics of foods and materials as they are perceived by the human senses of sight, smell, taste, touch, and hearing.
- 4162 Food Microbiology (4) S** Prereq.: BIOL 2051 and consent of department. 2 hrs. lecture; 4 hrs. lab. Also offered as BIOL 4162. Microbiological principles as applied to food and food products; emphasis on rapid detection of food borne microorganisms.
- 4163 Industrial Microbiology (4)** Prereq.: BIOL 4110 or equivalent. 2 hrs. lecture; 4 hrs. lab. See BIOL 4163.
- 7000 Perspectives in Nutrition (1) F** Development of nutrition as a science; current trends in nutritional research.
- 7010 Food Toxicology (3) S-O** Prereq.: FDSC 4060 or permission of instructor. Principles of risk assessment, food chemical safety and toxicology; mycotoxins, aquatic toxins; natural toxins; food additives; and other food toxins.
- 7016 Current Topics Related to Nutrients in Processed Foods (3) V** Effects of processing on nutrient retention in food.
- 7030 Advanced Food Research (1-6)** Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit. Individual problems in pertinent areas.
- 7040 Flavor and Colors of Foods (3) F** Prereq.: CHEM 2060 and FDSC 4060; or equivalent. 2 hrs. lecture; 3 hrs. lab. Methods of chemical, physical, and instrumental analysis in food colors and flavors; natural and synthetic flavorings and colorings.
- 7050 Food Protein Biotechnology (3) F-E** Prereq.: FDSC 4060, 4050 or permission of instructor. Overview of contemporary principles and applications of protein and enzyme technology, genetic engineering, and immunology for the production of safe foods and food ingredients; proteins as functional food ingredients; applications and regulations of protein biotechnology in the food industry as well as ethical and legal issues; career opportunities in protein and enzyme biotechnology.
- 7060 Advanced Concepts in Food Science (3) V** Prereq.: FDSC 4060 and BIOL 4087. Analysis of new and progressive concepts in food science.
- 7071 Seminar in Food Science (1) F,S** May be taken for a max. of 3 hrs. of credit. Selected topics in food science and technology.
- 7075 Advanced Food Preservation (4) V** Prereq.: FDSC 4075 or equivalent. 3 hrs. lecture; 3 hrs. lab including field trips to local food processors. Preservation technologies of various food processing operations from raw ingredients to final product.
- 7094 Seminar in Nutrition (1)** Same as ANSC 7094. May be taken for a max. of 2 hrs. of credit. Prereq.: ANSC 7091, DARY 7091, FDSC 7071, HUEC 7010, PLSC 7091 or equivalent or previous slide (not poster) presentation at a professional meeting.
- 7699 Toxicology Seminar (1)** See CBS 7699.
- 8000 Thesis Research (1-12 per sem.)** "S"/"U" grading.
- 9000 Dissertation Research (1-12 per sem.)** "S"/"U" grading.
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