894 Advanced Topics
Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course.

In depth study of advanced topics in fisheries and wildlife.

892 Biodiversity
Spring, 2(2-0) A student may earn a maximum of 4 credits in all enrollments for this course, interdepartmental with Zoology. Administered by Department of Zoology.
P:NM: (ZOL 250)
Status of world biota and factors in the decline and extinction of major groups of plants and animals. Theory and design of natural reserves. Assessment and ecological meaning of diversity. Management for global and local diversity.

893 Seminar in Fisheries and Wildlife
Fall, Spring. 1(1-0) A student may earn a maximum of 7 credits in all enrollments for this course.
Study and research in advanced problems and current development in fisheries and wildlife.

897 Ecosystem Ecology
Spring, 4(4-0) Interdepartmental with Zoology; Botany and Plant Pathology. Administered by Department of Zoology.
Structure and function of natural ecosystems. Succession, food web analysis, energy flow, nutrient cycling, and effects of human activities on ecosystems. Global environmental change. Ecosystem management and restoration.

898 Master's Research
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to graduates in the Fisheries and Wildlife major.
Master's degree Plan B research paper.

899 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Doctoral level graduate students in Fisheries and Wildlife.
Doctoral dissertation research.

FOOD INDUSTRY MANAGEMENT FIM

Department of Agricultural Economics
College of Agriculture and Natural Resources

100 Decision-making in the Agri-Food System
Fall, Spring, 3(3-0) Interdepartmental with Agribusiness Management. Administered by Department of Agricultural Economics. SA: FSM 200

210 Professional Seminar in Food Industry Management
Fall, Spring, 1(1-0) P:NM: (ABM 100 or concurrently or ABM 130 or concurrently) R: Open only to Food Industry Management majors. Industry trends in food industry management. Verbal, written, and visual communication techniques applied to professional situations, including professional development and career planning.

220 Food Product Marketing
Fall, Spring, 3(3-0) P:NM: (ABM 100 or concurrently) Structure of the food marketing system including food processors, manufacturers, retailers and food service. Impact of consumer behavior and buying patterns. International food product marketing. Strategic planning in food marketing.

222 Agribusiness and Food Industry Sales (W)
Fall, Spring, 3(3-0) Interdepartmental with Agribusiness Management. Administered by Department of Agricultural Economics. SA: FSM 320
Selling processes and activities within agribusiness and food firms. Principles and techniques of sales. Operation of sales organizations.

335 Food Marketing Management
Spring, 3(3-0) Interdepartmental with Marketing and Supply Chain Management. P:NM: (FIM 220 or MSC 300) SA: ML 335, MTA 335, FSM 335
Management decision-making in food industry organizations (processors, wholesalers, retailers). Marketing and sales in response to customer and consumer needs. Distribution and merchandising systems in domestic and international contexts.

337 Labor and Personnel Management in the Agri-Food System
Fall, 3(3-0) Interdepartmental with Agribusiness Management. Administered by Department of Agricultural Economics. P:NM: (ABM 100 or EC 201 or EC 202) R: Open only to juniors or seniors. SA: FSM 421
Human resource management principles for farms, agribusinesses and food firms: planning, recruiting, training, scheduling, motivating, supervising and evaluating. Labor regulations, compensation and records.

400 Public Policy Issues in the Agri-Food System
Spring, 3(3-0) Interdepartmental with Agribusiness Management. Administered by Department of Agricultural Economics. P:NM: (ABM 100 and EC 201) R: Open only to Food Industry Management juniors or seniors.
Analysis of imperfect competition and methods of conducting business. Interaction with legal systems and government.

410 Advanced Professional Seminar in Food Industry Management
Fall, 1(1-0) P:NM: (ABM 210 or FIM 210) R: Open only to Food Industry Management juniors or seniors.
Analysis of imperfect competition and methods of conducting business. Interaction with legal systems and government.

422 Vertical Coordination in the Agri-Food System
Fall, 3(3-0) Interdepartmental with Agribusiness Management. Administered by Department of Agricultural Economics. P:NM: (ABM 100 and EC 201) R: Open only to juniors or seniors. SA: FSM 422

427 Global Agri-Food Industries and Markets
Fall, 3(3-0) Interdepartmental with Agribusiness Management. Administered by Department of Agricultural Economics. P:NM: (FIM 220 or ABM 225)
Strategic understanding of the international agri-food system. Analysis of global production, marketing, and consumption. Knowledge of changing conditions in international industries and markets. Global trends and opportunities.

439 Food Business Analysis and Strategic Planning (W)
Fall, 3(3-0) Interdepartmental with Marketing and Supply Chain Management. P:NM: (FIM 220) R: Open only to seniors or seniors SA: ML 439, MTA 439, MSC 439
Principles and techniques of business analysis and strategic planning applied to food firms. Food trend forecasts, market potential, competition and cost analyses, business and strategic planning.

120 What's for Dinner: Science on Your Plate Fall, Spring. 1(2-0) Not open to students with credit in FSC 211 or FSC 229. Relationship between science and food. Current issues and future challenges in food science, technology, government, consumers and the media.

150 Introduction to Human Nutrition Fall, Spring. 3(3-0) Interdepartmental with Human Nutrition and Foods. Administered by Department of Food Science and Human Nutrition. Nutrition needs in life stages from a human ecological perspective. Domestic and international factors affecting the availability of a safe, nutritious food supply. Relationships of food choices to health and disease.

211 Principles of Food Science Fall. 3(3-0) Not open to students with credit in FSC 229. Scientific principles, historical perspective, and current status of technology related to food composition, safety, toxicology, processing, preservation, and distribution.

229 Unit Operations in Food Processing Fall. 3(3-0) Principles, technologies, and applications involved in conversion of raw products into high quality foods. Processing principles such as thermal processing, irradiation, freezing, membrane concentration, enzyme technologies, dehydration, and refrigeration.

275 Seafood Systems Management Spring. 3 credits. Interdepartmental with Fisheries and Wildlife; Animal Science. Administered by Department of Fisheries and Wildlife. Domestic and international perspectives on major aquatic foods. Cultural and nutritional value; wild harvest; aquaculture; processing technology; food handling and food safety.

320 Muscle Foods Spring. 3(2-3) Interdepartmental with Animal Science. Administered by Department of Animal Science. P/M: (ANS 210 or FSC 211 or HNF 150) Structure of muscle. Meat technology and merchandising concepts.

329 Fundamentals of Food Engineering Spring. 3(3-0) Interdepartmental with Bio-systems Engineering. Administered by Department of Agricultural Engineering. P/M: (FSC 229) and (MTH 126 or LBS 118) and (PHY 231 or LBS 164) P/NM: (FSC 211) SA: FE 329 Unit operations in food industry: fluid mechanics, heat transfer, rate processes, refrigeration, freezing, and dehydration. Thermal process calculations.

339 Food Processing and Engineering Laboratory Spring. 2(0-6) P/M: (FSC 229 or concurrently) and completion of Tier I writing requirement. P/NM: (FSC 229) Application of principles of material and energy balance, fluid flow, heat transfer, and water activity to the batch and continuous processing of raw product into high quality food.

342 Food Safety and Hazard Analysis Critical Control Point Program Fall. 3(3-0) P/NM: (FSC 211 or concurrently or FSC 229 or concurrently or HNF 150 or concurrently or HNF 311 or concurrently) or a prior or concurrent basic course in microbiology, chemistry or biological sciences. SA: FSC 442 Sources of microbiological, chemical and physical hazards; minimizing microbial growth and survival; good manufacturing, cleaning and sanitation practices; Hazard Analysis Critical Control Point Programs in food processing and foodservice.

401 Food Chemistry Fall. 3(3-0) P/M: (BMB 200 or CEM 352) or (BMB 401 or concurrently) R: Not open to freshmen or sophomores. Organic and biological reactions of food constituents. Chemical changes in foods during processing and storage affecting texture, color, flavor, stability, and nutritive qualities.

402 Food Chemistry Laboratory Fall. 1(0-3) P/M: (FSC 401 or concurrently) and completion of Tier I writing requirement. Chemical changes in food constituents which affect stability of food products and properties such as color, flavor and texture.

407 Food and Animal Toxicology Fall. 3(3-0) Interdepartmental with Animal Science. Administered by Department of Animal Science. P/M: (BMB 200 and BMB 401 and PSY 201) R: Not open to freshmen or sophomores. Fate and effects of chemicals in the food chain. Impact on animal production. Residues in food products. Food safety assessment. Control methods.