Course Schedule - Fall 2005

Food Science and Human Nutrition

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101 ***Intro Food Science & Nutrition*** Credit: 3 hours.
(FSHN 101) Discusses the evolution of the food system to meet the needs and desires of a complex, heterogeneous society. Provides an overview of food in relation to nutrition and health, composition and chemistry, microbiology, safety, processing, preservation, laws and regulations, quality, and the consumer. Limited to FSHN majors only. Enrollment by non-majors is permitted in spring semesters only.

This course satisfies the General Education Criteria for a Physical Sciences course.

CRN	Type	Section	Time	Days	Location	Instructor
30232	lecture	D	11:00 AM - 11:50 AM	MWF	room 180 Bevier Hall	Schmidt, S

120 ***Contemporary Nutrition*** Credit: 3 hours.
(FSHN 120) Fundamental principles of human nutrition and their application to the selection of adequate diets; current topics of nutritional importance. Prerequisite: CHEM 101 or equivalent

This course satisfies the General Education Criteria for a Life Sciences course.

CRN	Type	Section	Time	Days	Location	Instructor
30234	lecture-discussion	A	12:00 PM - 12:50 PM	MWF	room AUD Foellinger Auditorium	Roach, R

131 ***Introductory Food Laboratory*** Credit: 3 hours.
(FSHN 131) Application of food preparation principles and techniques in the preparation of standard food products; principles of food management and their application in the planning and preparation of meals. A laboratory fee is assessed each student. Prerequisite: FSHN 101 or concurrent registration.

Additional Class Materials Fee Required.

CRN	Type	Section	Time	Days	Location	Instructor
32115	lecture-discussion	AE1	08:00 AM - 08:50 AM	TR	room 328 Bevier Hall	Garrow, L
32115: Departmental Approval RequiredACES Class Materials 56.00 dollars.						
32115: Departmental Approval RequiredACES Class Materials 56.00 dollars.						
32111	laboratory-discussion	AY1	09:00 AM - 10:50 AM	TR	room 358 Bevier Hall	Garrow, L
32113	laboratory-discussion	AY2	01:00 PM - 02:50 PM	TR	room 358 Bevier Hall	Garrow, L

140 ***Introduction to Hospitality*** Credit: 3 hours.
(FSHN 140) Overview of the hospitality industry with emphasis on organizational and operational structures of the major segments of the industry and career opportunities within each. Field trips required.

CRN	Type	Section	Time	Days	Location	Instructor
30236	lecture-discussion	F	03:00 PM - 03:50 PM	MWF	room 242 Bevier Hall	Reutter, E

145 ***Intro Hospitality Management*** Credit: 3 hours.
(FSHN 145) Explore the foodservice aspect of the hospitality industry by assisting Hospitality Management seniors in the Bevier Cafe/Spice Box taking either FSHN 441 or FSHN 443. Course covers the planning, production and service of meals in specialized settings. Required field trip to Chicago.

CRN	Type	Section	Time	Days	Location	Instructor

199 ***Undergraduate Open Seminar*** Credit: 1 to 5 hours.
(FSHN 199) Experimental course on a special topic in food science and human nutrition. Topic may not be repeated except in accordance with the Code. May be repeated in the same or subsequent terms. No more than 12 hours may be counted toward graduation. Approved for both letter and S/U grading.

CRN	Type	Section	Time	Days	Location	Instructor
10152	independent study		ARRANGED			
10152: Instructor Approval Required						
10152: Instructor Approval Required						
32124	lecture	KLP	03:30 PM - 04:20 PM	R	room W109 Turner Hall	Plawecki, K; Dong, F
32124: 1 hoursTopic: "Issues and Careers in Dietetics and Nutrition" Open to Dietetics and Human Nutrition students.						
42750	independent study	MTN	ARRANGED			Nakamura, M
32126	lecture	TPC	11:00 AM - 11:50 AM	T	room 204 Agricultural Engr Sciences Bld	Cummings, T
32126: 1 hoursTopic: "Issues and Careers in Food Science and Food Industry and Business" Open to Food Science and Food Industry and Business students.						

220 ***Principles of Nutrition*** Credit: 4 hours.

(FSHN 220) Course focuses on the nutritive value of foods and metabolism of essential nutrients, as well as the application of principles of nutrition to the requirements of normal individuals throughout the life cycle. Prerequisite: CHEM 102; MCB 103.

CRN	Type	Section	Time	Days	Location	Instructor

260 ***Raw Materials for Processing*** Credit: 4 hours.

(FSHN 260) Problems involved with procurement, harvesting, handling, and storage of fruits, vegetables, cereal grains, dairy products, red meat, poultry, fish, and eggs for the food-processing industry. Field trips to specialized operations. Prerequisite: One high school course in biological science and FSHN 101.

CRN	Type	Section	Time	Days	Location	Instructor

274 ***NonMajors Food Microbiology*** Credit: 1 hours.
(FSHN 204) Introduction to food plant sanitation and the role of microorganisms in food manufacture. Students may not receive credit for both FSHN 101 and FSHN 274. Prerequisite: Sophomore standing or higher.

CRN	Type	Section	Time	Days	Location	Instructor
30239	lecture	A	03:00 PM - 04:50 PM	W	room 204 Agricultural Engr Sciences Bld	Martin, S
46484	lecture	B	03:00 PM - 04:50 PM	M	room 204 Agricultural Engr Sciences Bld	Martin, S

293 ***Off Campus Internship*** Credit: 2 to 4 hours.
(FSHN 293) Supervised, off-campus experience in a field directly pertaining to the subject matter. May be repeated to a maximum of 10 hours. Approved for both letter and S/U grading.

CRN	Type	Section	Time	Days	Location	Instructor
41142	independent study		ARRANGED			

294 ***On Campus Internship*** Credit: 1 to 4 hours.

(FSHN 294) Supervised, on-campus, learning experience with faculty engaged in research. Approved for both letter and S/U grading. Prerequisite: Sophomore standing, 2.0 GPA, consent of the advisor, and consent of the Department Teaching Coordinator. May be repeated in the same or subsequent terms to a maximum of 10 hours.

CRN	Type	Section	Time	Days	Location	Instructor

295 ***UG Research or Thesis*** Credit: 1 to 4 hours.

(FSHN 295) Individual research, special problems, thesis, development and/or design work under the supervision of an appropriate member of the faculty. May be repeated in the same or subsequent terms. No more than 12 hours of special problems, research, thesis and/or individual studies may be counted toward degree. Prerequisites: Cumulative GPA of 2.5 or above at the time the activity is arranged and consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
10165	independent study		ARRANGED			

302 ***Sensory Evaluation of Foods*** Credit: 3 hours.
(FSHN 202) The physiology, psychology, and chemistry of flavor and flavor perception; tactual, visual, and auditory components affecting food acceptability; principles and application of preference and discrimination testing; and interpretation of panel evaluation data.

Additional Class Materials Fee Required.

CRN	Type	Section	Time	Days	Location	Instructor
32054	laboratory	AB1	11:00 AM - 12:50 PM	T	room 372 Bevier Hall	Lee, S
32057	laboratory	AB2	11:00 AM - 12:50 PM	R	room 372 Bevier Hall	Lee, S
32060	lecture	AL1	10:00 AM - 10:50 AM	TR	room 328 Bevier Hall	Lee, S
32060: ACES Class Materials 30.00 dollars.						
32060: ACES Class Materials 30.00 dollars.						

322 ***Nutrition and the Life Cycle*** Credit: 3 hours.
(FSHN 322) Examines physiological changes that occur during gestation, postnatal growth, and aging and the influence of these changes on nutritional requirements. Offered in alternate fall semsesters (odd years). Prerequisite: FSHN 220 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

329 ***Communication in Nutrition*** Credit: 3 hours.
(FSHN 229) Application and integration of the principles of nutrition and their transmission to groups and individuals. Students will learn individual counseling techniques as well as how to present nutrition information to groups. Open to Dietetics and Human Nutrition juniors and seniors only. Prerequisite: FSHN 220 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor

332 ***Science of Food Systems*** Credit: 3 hours.
(FSHN 231) Application of chemical principles and physical behavior of ingredients in food systems and the effects processing and storage have on finished food products. A laboratory fee is assessed. Prerequisite: CHEM 102 or equivalent; FSHN 131.

Additional Class Materials Fee Required.

CRN	Type	Section	Time	Days	Location	Instructor
32064	laboratory	AB1	01:00 PM - 04:50 PM	W	room 362 Bevier Hall	Garrow, L
32068	laboratory	AB2	01:00 PM - 04:50 PM	M	room 362 Bevier Hall	Garrow, L
32071	lecture	AL1	10:00 AM - 10:50 AM	MW	room 328 Bevier Hall	Garrow, L
32071: Departmental Approval RequiredACES Class Materials 56.00 dollars.						
32071: Departmental Approval RequiredACES Class Materials 56.00 dollars.						

340 ***Food Production and Service*** Credit: 4 hours.

(FSHN 240) Introduction to the management of commercial and noncommerical foodservice systems through the operation of Bevier Cafe. Students experience managing the procurement, production and service of food, as well as the sanitation and maintenance of equipment and facilities. Prerequisite: FSHN 332, credit or concurrent registration in FSHN 349 and FSHN 345.

CRN	Type	Section	Time	Days	Location	Instructor
32075	laboratory	AB1	08:30 AM - 01:50 PM	MW	room 292 Bevier Hall	Craft, J
32075: Departmental Approval Required						
32075: Departmental Approval Required						
32077	laboratory	AB2	08:30 AM - 01:50 PM	WF	room 292 Bevier Hall	Craft, J
32077: Departmental Approval Required						
32077: Departmental Approval Required						
32083	laboratory	AB3	08:30 AM - 01:50 PM	MF	room 292 Bevier Hall	Craft, J
32083: Departmental Approval Required						
32083: Departmental Approval Required						
32085	laboratory	AB4	08:30 AM - 01:50 PM	TR	room 292 Bevier Hall	Craft, J
32085: Departmental Approval Required						
32085: Departmental Approval Required						
32087	lecture	AL1	02:00 PM - 02:50 PM	WF	room 242 Bevier Hall	Craft, J
43755	laboratory	BB1	08:00 AM - 12:50 PM	MW		Plawecki, K
43756	laboratory	BB2	08:00 AM - 12:50 PM	WF		Plawecki, K
43757	laboratory	BB3	08:00 AM - 12:50 PM	MF		Plawecki, K
43758	laboratory	BB4	08:00 AM - 12:50 PM	TR		Plawecki, K
43754	lecture	BL1	02:00 PM - 02:50 PM	WF	room 348 Bevier Hall	Plawecki, K
43754: Departmental Approval Required						
43754: Departmental Approval Required						

345 ***Hospitality Purchasing*** Credit: 3 hours.
(FSHN 245) Introduction to the principles and procedures for the purchasing, selection and procurement of food and non-food items in the hospitality industry. Field Trips. Prerequisite: FSHN 131, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
30240	lecture	S	03:00 PM - 04:20 PM	TR	room 328 Bevier Hall	Craft, J

348 ***Hotel Management & Operations*** Credit: 2 hours.
(FSHN 248) Introduction to the knowledge, attitudes and skills necessary to be an effective manager in delivering quality customer service within the hotel industry. Field trips required. Offered in alternate years. Prerequisite: FSHN 140, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

349 ***Food Service Sanitation*** Credit: 1 hours.

(FSHN 149) Examines the dangers, costs and prevention of foodborne illness as well as the training and motivation of food service employees in sanitary food handling and quality assurance practices. Upon completion of this course, student will be eligible to apply for the food service sanitation certificate issued by the State of Illinois. Prerequisites: FSHN 101 and 131, MCB 100 and MCB 101, or consent of instructor.

Self-paced.

CRN	Type	Section	Time	Days	Location	Instructor
30238	lecture-discussion	A	10:00 AM - 12:00 PM	S	room 30 ACES Lib, Info and Alum Ctr	Reutter, E

396 ***UG Honors Research or Thesis*** Credit: 1 to 4 hours.
(FSHN 296) Individual research, special problems, thesis, development and/or design work under the direction of the Honors advisor. May be repeated in the same or subsequent terms. No more than 12 hours of special problems, research, thesis and/or individual studies may be counted toward the degree. Prerequisite: Junior standing, admission to the ACES Honors Program, and consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
10176	independent study		ARRANGED			

398 ***Undergraduate Seminar*** Credit: 1 to 3 hours.
(FSHN 298) Group discussion on a special topic in a field of study directly pertaining to subject matter in food science and human nutrition. Approved for both letter and S/U grading. May be repeated in the same or subsequent terms to a maximum of 12 hours. Prerequisite: Junior standing.

CRN	Type	Section	Time	Days	Location	Instructor
32089	lecture	D	08:00 AM - 08:50 AM	W	room 242 Bevier Hall	Plawecki, K
32089: 1 hoursPrerequisite: Senior standing in Dietetics. Required for students planning to become registered dietitians.						
32091	lecture	J	05:00 PM - 05:50 PM	W	room 272 Agricultural Engr Sciences Bld	Cummings, T
32091: 1 hoursTopic: Discussion of specialized topics and literature related to Food Science. Required for graduation in Food Science and Food Industry and Business curricula. Intended for Sophomores and Juniors.						

414 ***Food Chemistry*** Credit: 3 hours.
(FSHN 314) Examines the chemical aspects of major food components; water, carbohydrates, proteins, and lipids; properties of pigments, salts, and food dispersions. Food Science majors must enroll concurrently in FSHN 416. Prerequisite: CHEM 232 and CHEM 233.

CRN	Type	Section	Time	Days	Location	Instructor
30241	lecture	E	01:00 PM - 01:50 PM	MWF	room 242 Bevier Hall	Engeseth, N

415 ***Food Biochem & Biotechnology*** Credit: 3 hours.

(FSHN 315) Examines biochemical pathways associated with the major food components of carbohydrates, lipids, and proteins. Enzyme kinetics, regulation, and catalytic mechanisms; undesirable compounds in foods; postharvest biochemistry/physiology. Basics of biotechnology, biotechnology techniques, and their application to foods. Prerequisite: FSHN 414; and CHEM 232 and CHEM 233.

CRN	Type	Section	Time	Days	Location	Instructor

416 ***Food Chemistry Laboratory*** Credit: 2 hours.
(FSHN 316) Chemical and physical properties of water, proteins, lipids, carbohydrates, and other food components/ additives are discovered in the context of their interactions and functional roles in foods. Prerequisite: CHEM 232 and CHEM 233 and concurrent enrollment in FSHN 414.

CRN	Type	Section	Time	Days	Location	Instructor
30242	laboratory	A	02:00 PM - 02:50 PM	T	room 208 Agricultural Engr Sciences Bld	Demejia, E
	laboratory	A	02:00 PM - 04:50 PM	TR	room 280 Agricultural Engr Sciences Bld	Demejia, E

418 ***Food Analysis*** Credit: 4 hours.
(FSHN 318) Principles and application of the chemical, physical, and instrumental methods used to determine the constituents of foods; special considerations applicable to the analysis of certain foods. Lecture and lab. Prerequisite: CHEM 232; FSHN 414; FSHN 416 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

420 ***Nutritional Aspects of Disease*** Credit: 3 hours.
(FSHN 320) Examines nutritional, biochemical, and physiological aspects of disease processes and studies the role of nutrition in prevention, management, and treatment of disease. Same as NUTR 420. Prerequisite: FSHN 220 or comparable course with a physiology prerequisite; MCB 450 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
37693	lecture	A	12:00 PM - 12:50 PM	MWF	room 132 Bevier Hall	Layman, D; Nakamura, M; Tappenden, K

421 ***Pediatric Clinical Nutrition*** Credit: 2 hours.

(FSHN 321) Examines physiological, biochemical and nutritional aspects of disease processes relevant to infants, children and adolescents. Topics covered include prematurity, developmental disabilities, inborn errors of metabolism, food allergy, obesity and eating disorders.The role of nutrition in prevention, management and treatment of disease is also covered. Prerequisite: FSHN 420 and FSHN 322 is highly recommended.

CRN	Type	Section	Time	Days	Location	Instructor

423 ***Advances in Foods & Nutrition*** Credit: 2 hours.
(FSHN 323) New developments in foods and nutrition; readings, lectures, and discussions. Prerequisite: FSHN 220 and FSHN 332, or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
10181	independent study		ARRANGED			

425 ***Food Marketing*** Credit: 4 hours.
(FSHN 325) Same as ACE 430. See ACE 430.

CRN	Type	Section	Time	Days	Location	Instructor

426 ***Biochemical Nutrition I*** Credit: 4 hours.

Biochemistry and metabolism of the B vitamins and derived coenzymes, and the dietary and hormonal regulation of carbohydrate, lipid and amino acid metabolism. Emphasizes the regulation of enzyme activity and the different roles the major organs have in whole animal energy balance. Same as NUTR 426. Prerequisite: FSHN 220, or FSHN 120 and FSHN 414, and MCB 450 or concurrent enrollment.

CRN	Type	Section	Time	Days	Location	Instructor
37690	lecture	A	07:00 PM - 08:50 PM	TR	room 132 Bevier Hall	Garrow, T

427 ***Biochemical Nutrition II*** Credit: 2 hours.

Biochemistry and metabolism of the fat soluble vitamins, and the biochemical role of minerals in animal biology. Emphasizes the digestion, transport, metabolism and intercellular function of these nutrients and how nutrient/food intake and physiological state affect these processes. Same as NUTR 427. Prerequisite: FSHN 426.

CRN	Type	Section	Time	Days	Location	Instructor

428 ***Community Nutrition*** Credit: 3 hours.
(FSHN 328) Application and integration of the principles of nutrition and their delivery in the context of social, political, and economic environments in local, national, and international settings. Offered in alternate years. Same as NUTR 428. Prerequisite: FSHN 220 or equivalent, one introductory statistics course, and one course in the social or behavioral sciences.

CRN	Type	Section	Time	Days	Location	Instructor

429 ***Nutrition Assessment & Therapy*** Credit: 3 hours.
(FSHN 329) Application of the principles of normal and therapeutic nutrition, nutrition assessment, nutrition intervention and evaluation as related to the management and treatment of disease states. Laboratories will allow for the development of skills in each of these areas. This course is the clinical capstone course for the dietetics curriculum. Prerequisite: FSHN 320 and MCB 350, or concurrent enrollment.

CRN	Type	Section	Time	Days	Location	Instructor
30245	lecture	A	03:00 PM - 04:20 PM	MW	room 132 Bevier Hall	Roach, R; Tappenden, K

440 ***Applied Statistical Methods I*** Credit: 4 hours.
(FSHN 340) Same as ABE 440, ANSC 440, CPSC 440, and NRES 440. See CPSC 440.

CRN	Type	Section	Time	Days	Location	Instructor
34109	lecture	AL1	08:00 AM - 09:20 AM	TR	room 124 Burrill Hall	Bullock, D
34021	laboratory-discussion	AY1	01:00 PM - 02:50 PM	T	room N120 Turner Hall	Bullock, D
34036	laboratory-discussion	AY2	05:00 PM - 06:50 PM	T	room N120 Turner Hall	Bullock, D
34052	laboratory-discussion	AY3	01:00 PM - 02:50 PM	W	room N120 Turner Hall	Bullock, D
34072	laboratory-discussion	AY4	03:00 PM - 04:50 PM	T	room N120 Turner Hall	Bullock, D
34094	laboratory-discussion	AY5	10:00 AM - 11:50 AM	T	room N120 Turner Hall	Bullock, D

441 ***Managing Catering Operations*** Credit: 3 hours.

(FSHN 341) Basic principles of marketing, financial management, food preparation and service, and personnel management will be applied through the catering business of Bevier Cafe/Spice Box. Students will be responsible for one catered event during the term and help in the execution of all others. 3 undergraduate hours. Prerequisite: FSHN 340.

CRN	Type	Section	Time	Days	Location	Instructor

442 ***HM Skills and Applications*** Credit: 3 hours.
(FSHN 350) Application of behavioral science and management techniques, methods and strategies to the hospitality industry. Applied management techniques will focus on those managerial behaviors needed to develop and maintain positive and productive relationships with subordinates, peers, supervisors and individuals external to the hospitality organization. 3 undergraduate hours. Prerequisite: FSHN 340 and FSHN 441, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

443 ***Management of Fine Dining*** Credit: 4 hours.

(FSHN 355) Advanced application of food production and management principles to specific food service demands; emphasis on artistry in preparation, serving, and merchandising high quality food in quantity. 4 undergraduate hours. Prerequisite: FSHN 340 and FSHN 441, and credit or concurrent registration in FSHN 442.

CRN	Type	Section	Time	Days	Location	Instructor

460 ***Food Processing Engineering*** Credit: 3 hours.
(FSHN 360) Examines application of process engineering principles to the conversion of raw agricultural materials into finished food products. Topics include basics of engineering analysis, units and dimensions, materials balances, energy balances, thermodynamics, heat transfer, psychrometry, refrigeration and mechanical separations. Prerequisite: PHYS 101 and MATH 120; or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

461 ***Food Processing I*** Credit: 3 hours.

(FSHN 361) Principles, unit operations, and applications of food preservation and processing by high temperature, refrigeration, and freezing processes; includes heat transfer, kinetics, chemical and microbial changes in food as a result of processing; lecture and laboratory. Prerequisite: FSHN 418 and FSHN 460; and FSHN 414 or equivalent; FSHN 260 is recommended.

Additional Class Materials Fee Required.

CRN	Type	Section	Time	Days	Location	Instructor
30249	laboratory	AB1	02:00 PM - 04:50 PM	M	room 194 Agricultural Engr Sciences Bld	Artz, W; Lee, Y
41994	laboratory	AB2	02:00 PM - 04:50 PM	T	room 194 Agricultural Engr Sciences Bld	Artz, W; Lee, Y
30256	lecture	AL1	10:00 AM - 10:50 AM	MW	room 272 Agricultural Engr Sciences Bld	Artz, W
30256: ACES Class Materials 50.00 dollars.						
30256: ACES Class Materials 50.00 dollars.						

462 ***Food Processing II*** Credit: 3 hours.
(FSHN 362) Principles and applications of food preservation and processing technologies including evaporation, dehydration, freeze-concentration, membrane processing, extrusion and water activity control; lectures, laboratories, and field trips. Prerequisite: FSHN 461 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

465 ***Principles of Food Technology*** Credit: 3 hours.
(FSHN 365) Overview of processing techniques in the food industry, including thermo-processing, refrigeration, freezing, moisture removal, moisture control nonthermal processing, and intermediate moisture food formulation. Lecture and field trips. FSHN 465 is not offered to undergraduate food science majors or graduate students specializing in food processing/engineering. Students may not receive credit for both FSHN 465 and the FSHN 461-FSHN 462 sequence. Prerequisite: FSHN 332 or food chemistry equivalent, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
30259	lecture	A	11:00 AM - 11:50 AM	MWF	room 272 Agricultural Engr Sciences Bld	Cheryan, M

466 ***Food Product Development*** Credit: 3 hours.

(FSHN 366) Principles of food product development: target market evaluation, concept development and presentation, formulation, manufacturing, packaging, product costs, pricing, safety, and marketing May include a product in accordance with Institute of Food Technologists national competition guidelines. Products will be unveiled and presented for faculty evaluation. This capstone course is limited to seniors in the Food Science or Foods in Business options in FSHN. Graduate students will be allow to register pending sufficient space in the class. May be repeated to a maximum of 6 hours. Prerequisite: FSHN 332 or FSHN 414; FSHN 471 or FSHN 472; concurrent registration or completion of FSHN 461 and FSHN 462, or FSHN 465.

CRN	Type	Section	Time	Days	Location	Instructor
30262	laboratory	AB1	02:00 PM - 05:00 PM	F	room 362 Bevier Hall	Brewer, M
30267	lecture	AL1	01:00 PM - 01:50 PM	TR	room 272 Agricultural Engr Sciences Bld	Brewer, M

469 ***Package Engineering*** Credit: 3 hours.
(FSHN 369) Cross-disciplinary study of the materials, machinery, research, design, techniques, environmental considerations, ethics and economics used in the global packaging industry with emphasis on the implementation of improved technologies for the problems unique to food packaging. An emphasis on the broad, systems-based nature of packaging will be maintained throughout the course. Same as ABE 482. Prerequisite: MATH 120; one each of 100-level Chemistry and Physics courses or their equivalent; junior-senior standing or higher, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
37686	lecture	A	12:00 PM - 12:50 PM	MWF	room 272 Agricultural Engr Sciences Bld	Morris, S
45923	online	SM	ARRANGED			Morris, S
45923: OnlineXM Tuition 239, XM Tuition 215, XM Fees 36, and XM Fees 36.00 dollars.						
45923: Academic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu. This course is mainly online but there will be four sessions on the following dates: August 27, September 24, October 29, and December 10 from 9:00 AM - 1:00 PM that will be held at Oak Brook.OnlineXM Tuition 239, XM Tuition 215, XM Fees 36, and XM Fees 36.00 dollars.						

471 ***Food & Industrial Microbiology*** Credit: 3 hours.

(FSHN 371) Relationship of microorganisms to food manufacture and preservation, to industrial fermentation and processing, and to sanitation. Same as MCB 434. Prerequisite: MCB 101 or 301 or equivalent. Credit or concurrent registration in organic chemistry laboratory.

CRN	Type	Section	Time	Days	Location	Instructor

472 ***Sanitation in Food Processing*** Credit: 2 hours.

(FSHN 372) Studies the principles of sanitation with emphasis on practical considerations as they apply to various food-processing industries; control of insects, rodents, and micro organisms; fundamentals of detergency; sanitation of water supplies; waste disposal methods; and government and public health regulations. Field trips to local food-processing plants. Prerequisite: CHEM 104 and MCB 101.

CRN	Type	Section	Time	Days	Location	Instructor

480 ***Basic Toxicology*** Credit: 3 hours.
(FSHN 380) Emphasizes the physiology and biochemistry of intoxication; discusses the types of cellular response to toxic compounds and the role of species variation in the economic use of toxins as pesticides and therapeutic agents. Same as CPSC 433, ENVS 480, and VB 549. Prerequisite: MCB 350 or MCB 406, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
37665	lecture	C	10:00 AM - 10:50 AM	MWF	room 393 Bevier Hall	Jeffery, E

499 ***Seminar*** Credit: 1 to 3 hours.
(FSHN 399) Group discussion or an experimental course on a special topic in food science and human nutrition. 1 to 3 undergraduate hours. May be repeated in the same or subsequent terms to a maximum of 12 hours as topics vary.

Additional Class Materials Fee Required.

CRN	Type	Section	Time	Days	Location	Instructor
10184	independent study		ARRANGED			

510 ***Topics in Nutrition Research*** Credit: 1 hours.
(FSHN 410) Same as ANSC 525, and NUTR 510. See NUTR 510.

CRN	Type	Section	Time	Days	Location	Instructor
34614	lecture	A	11:00 AM - 12:20 PM	TR	room 328 Bevier Hall	Murphy, M
34614: Meets 24-Aug-05 - 27-Sep-05.						
34614: History of NutritionTopic: History of Nutrition.Meets 24-Aug-05 - 27-Sep-05.						
34610	lecture	B	11:00 AM - 12:20 PM	TR	room 328 Bevier Hall	Singletary, K
34610: Meets 29-Sep-05 - 27-Oct-05.						
34610: Diet and CancerTopic: Diet and Cancer.Meets 29-Sep-05 - 27-Oct-05.						
34617	lecture	C	11:00 AM - 12:20 PM	TR	room 328 Bevier Hall	Erdman, J; Fahey, G; Garlick, P
34617: Meets 01-Nov-05 - 09-Dec-05.						
34617: Scientific Basis for DRIsTopic: Scientific Basis for Establishing Dietary Recommendations.Meets 01-Nov-05 - 09-Dec-05.						

511 ***Regulation of Metabolism*** Credit: 4 hours.
(FSHN 411) Same as ANSC 521, and NUTR 511. See NUTR 511.

CRN	Type	Section	Time	Days	Location	Instructor

512 ***Physical Chemistry of Food*** Credit: 4 hours.
(FSHN 412) Studies physicochemical processes in foods during food processing; places special emphasis on methodological and experimental aspects of food processes, such as water activity, rheology of foods, food extrusion, protein hydration, gelatin, aggregation, and food process analyses. Offered alternate years. Prerequisite: FSHN 414 or MCB 350.

CRN	Type	Section	Time	Days	Location	Instructor

517 ***Fermented & Distilled Bevrages*** Credit: 2 hours.

The production technology, microbiology and chemistry (including the compositional chemisty, flavor chemistry, and chemistry of aging) of fermented and distilled beverages. Prerequisite: Graduate student status, or a food microbiology course and a food chemistry or biochemistry course.

CRN	Type	Section	Time	Days	Location	Instructor

518 ***Chemistry of Lipids in Foods*** Credit: 3 hours.
(FSHN 418) Detailed examination of the chemical and physical properties of lipids in foods. Offered alternate years. Prerequisite: A food chemistry or biochemistry course is highly recommended.

CRN	Type	Section	Time	Days	Location	Instructor

520 ***Advanced Clinical Nutrition*** Credit: 2 hours.
(FSHN 420) Same as NUTR 561. See NUTR 561.

CRN	Type	Section	Time	Days	Location	Instructor

560 ***Membrane Separations Tech*** Credit: 2 hours.
(FSHN 460) Examines theory and applications of synthetic semipermeable membranes in reverse osmosis, ultrafiltration, microfiltration, and electrodialysis processes; thermodynamics of bioseparations, membrane chemistry and properties, process engineering, equipment design, fouling of membranes, selected applications. Offered alternate years. Prerequisite: FSHN 460 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

573 ***Advanced Food Microbiology*** Credit: 3 hours.
(FSHN 473) Detailed examination of food and industrial processes dependent on fermentation and other microbial activities. Offered alternate years. Prerequisite: Organic chemistry, calculus, and MCB 434.

CRN	Type	Section	Time	Days	Location	Instructor
30270	lecture	A	09:00 AM - 10:30 AM	TR	room 393 Bevier Hall	Blaschek, H; Martin, S

575 ***Issues in Food Safety*** Credit: 3 hours.

Current issues affecting the safety of the food supply including emerging pathogens, food additives and pesticides, genetically modified organisms and new technologies will be evaluated in the context of current scientific knowledge, United States food law, and consumer opinions. Prerequisite: Graduate level status or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

590 ***Dietetic Internship I*** Credit: 4 hours.
(FSHN 490) Supervised learning experience in a variety of settings and locations related to clinical nutrition, community nutrition, and food service management within Urbana/Champaign and surrounding areas. Offered in summer only. Approved for both letter and S/U grading. Prerequisite: Enrollment in dietetic internship program.

CRN	Type	Section	Time	Days	Location	Instructor

591 ***Dietetic Internship II*** Credit: 6 hours.
(FSHN 491) Supervised learning experience in a variety of settings and locations related to clinical nutrition, community nutrition and health promotion, and food service management within Urbana/Champaign and surrounding areas. Approved for both letter and S/U grading. Prerequisite: FSHN 590.

CRN	Type	Section	Time	Days	Location	Instructor
30273	lecture-discussion	A	09:00 AM - 12:00 PM	M	room 372 Bevier Hall	Tappenden, K

593 ***Seminar in Foods*** Credit: 2 hours.
(FSHN 493) Discusses and evaluates current literature related to specialized topics in foods. Prerequisite: Undergraduate degree in foods, nutrition, or comparable background in chemistry, microbiology, physiology, or other biological science; consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

595 ***Food Science Advanced Topics*** Credit: 1 to 4 hours.
(FSHN 495) Studies of selected topics in Food Science. Study may be on specialized topics in any one of the following fields: food chemistry, food microbiology, nutrition, food processing/engineering. Lectures and/or laboratory. May be repeated if topics vary. Students may register only once for a given topic. Prerequisite: Consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
45922	lecture-discussion	KC	ARRANGED		room ARR 1XUOPS	Cadwallader, K
45922: Meets 22-Sep-05 - 29-Oct-05.XM Tuition 239, XM Tuition 215, XM Fees 36, and XM Fees 36.00 dollars.						
45922: 2 hoursFlavor ChemistryAcademic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu. Classes will meet from 6-9 pm on 9/22, 9/29, 10/6, 10/13, 10/20, & 10/27 in Oakbrook & 8-5 on 10/29 on the UIUC campus. The Saturday meeting place will be 201 Ag Bioprocess Lab (1302 W. Pennsylvania Avenue, Urbana).Meets 22-Sep-05 - 29-Oct-05.XM Tuition 239, XM Tuition 215, XM Fees 36, and XM Fees 36.00 dollars.						
32096	laboratory-discussion	LEE	02:00 PM - 02:50 PM	R	room 348 Bevier Hall	Lee, S
	laboratory-discussion	LEE	02:00 PM - 03:50 PM	T	room 348 Bevier Hall	Lee, S
: 3 hoursTopic: "Advanced Topics in Sensory Science"						
32101	lecture	W	11:00 AM - 11:50 AM	TR	room 272 Agricultural Engr Sciences Bld	Padua, G; Feng, H
32101: 2 hoursTopic: "Advanced Food Processing"						

596 ***Seminar in Nutrition*** Credit: 2 hours.
(FSHN 496) Discusses and evaluates current literature related to topics in nutrition. Prerequisite: Undergraduate degree in foods, nutrition, or comparable undergraduate degree in biochemistry, microbiology, physiology, or other biological science; consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor

597 ***Seminar in Food Science*** Credit: 0 to 1 hours.
(FSHN 497) Discussions on specialized research topics and current literature relating to food science and technology. Required of all graduate students in food science. Approved for both letter and S/U grading.

CRN	Type	Section	Time	Days	Location	Instructor
30276	lecture	1	11:00 AM - 11:50 AM	F	room 242 Bevier Hall	Klein, B; Lee, S

598 ***Advanced Special Problems*** Credit: 1 to 8 hours.
(FSHN 498) Supervised individual study on advanced special problems in food science and human nutrition. Approved for both letter and S/U grading. Summer session, 1 to 4 graduate hours. Prerequisite: Written consent of instructor must be obtained prior to enrollment.

CRN	Type	Section	Time	Days	Location	Instructor
10188	independent study		ARRANGED			
10188: Instructor Approval Required						
10188: Instructor Approval Required						
42612	lecture-discussion	OJC	12:00 PM - 12:50 PM	T		Demejia, E
42612: 1 hours						

599 ***Thesis Research*** Credit: 0 to 16 hours.
(FSHN 499) Original research designed and conducted under graduate faculty supervisor. May be repeated. Approved for S/U grading only.

CRN	Type	Section	Time	Days	Location	Instructor
10193	independent study		ARRANGED			