Fall 2024 – Spring 2027

Updated 10/21/2024

All classes are three credits each unless stated otherwise.

Please note that additional classes will be added as new faculty members are hired. Early registration is encouraged because most graduate classes have size limits of 20-24 students. Students who are based in Orono generally take the seminar sequence of FSN 571 in their first fall semester, and FSN 671 the following spring. Classes marked with an asterisk can be applied to either graduate certificate. TBD means to be determined.

Please note that the Dietetic Internship classes are not shown because only admitted interns may enroll in them. FSN 650 (2 cr.) is in the Fall, and FSN 651 (2 cr.) is taught in the Spring. FSN 652 and 681 are taken during the internship rotations.

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|  | **Orono campus classes (may not be taken by students in online programs)** | **Online-only classes** |
| **Food Technology certificate** | **Human Nutrition certificate** | **Required for the online M.S.** |
|  |  |  |  |  |
| Fall 2024 | FSN 520 Food Product Development (Dr. Skonberg) | FSN 502 Food Preservation (Dr. Jin) 3 cr. | FSN 539 Probiotics in Food: Formulations & Function \*(Dr. Perry) 3 cr. | FSN 502 Food Preservation (Dr. Jin) 3 cr. |
|  |  | FSN 540 Advanced Clinical Topics 3 cr.  | FSN 524 Responsible Design, Conduct & Analysis of Research \*(Dr. Camire) 3 cr. |
| FSN 571 Technical Presentations (TBD) 1 cr. (Dr. McNamara) |  |  | FSN 543 Communication in Nutrition & Food Technology \*(Professor Yerxa) 3 cr. |
| FSN 584 Lipids, Diet and Cardiovascular Disease (Dr. Klimis-Zacas) 3 cr. |  |  |  |
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| Spring 2025 | FSN 528 Food Microbiology (Dr. Perry) | FSN 545 Utilization of Aquatic Food Resources (Dr. Skonberg) 3 cr. | FSN 506 Nutritional Assessment (Dr. Therrien and Ms. Ouellette)  |  |
| FSN 529 Food Microbiology Lab (Dr. Perry) 2 cr. | FSN 585 Principles of Sensory Evaluation (Dr. Camire) 3 cr. | FSN 542 Sustainability, Nutrition and Health (Dr. Klimis-Zacas) 3 cr. |  |
| FSN 560 Research Methods in Community Nutrition (Dr. McNamara) 3 cr. | FSN 536 Food Laws & Regulations (Dr. Bushway) 3 cr. |  |  |
| FSN 575- Sensory Evaluation Laboratory (Dr. Camire) 1 cr. |  |  |  |
|  | FSN 671 Adv. Graduate Seminar (Dr. Jin) 1 cr.  |  |  |  |
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| Summer 2025 |  | FSN 502 Food Preservation (Dr. Jin) 3 cr. **7/7-8/15** | FSN 508 Nutrition & Aging (Dr. Camire) 3 cr. **6/23-8/1** | FSN 502 Food Preservation (Dr. Jin) 3 cr. **7/7-8/15** |
| FSN 524 Responsible Design, Conduct & Analysis of Research \*(Dr. McNamara) 3 cr. **5/12-6/20** |
| FSN 543 Communication in Nutrition & Food Technology \* (Professor Yerxa) 3 cr. **6/23-8/22** |
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| Fall 2025 | FSN 571 Technical Presentations (TBD) 1 cr. | FSN 586 Sensory & Consumer Science Applications (Dr. Camire) 3 cr. | FSN 501 Advanced Human Nutrition (TBD) 3 cr. | FSN 501 Advanced Human Nutrition (TBD) 3 cr. |
|  | FSN 580 - Food Chemistry (Dr. Skonberg) 3 cr. | **Food and Bioprocess Technology (Dr. Jin) 3 cr.****Pending approval** | FSN 540 Advanced Clinical Topics (Dr. Therrien-Genest) 3 cr.  |  |
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| Spring 2026 | FSN 587 Food Analysis (TBD) 3 cr. | FSN 536 Food Laws & Regulations (Dr. Bushway) 3 cr. | FSN 506 Nutritional Assessment (Dr. Therrien and Ms. Ouellette) 3 cr. | FSN 543 Communication in Nutrition & Food Technology \* (Dr. Klimis-Zacas) 3 cr. |
|  | FSN 671/AVS 366 Adv. Graduate Seminar (Dr. Jin) 1 cr.  | FSN 538 Fermented Foods (Dr. Perry) 3 cr.  | FSN 530 Integrated & Functional Nutrition (Dr. Camire) 3 cr. |  |
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| Summer 2026 |  | **Food Ingredient Technology (Dr. Perry) 3 cr. Pending approval** |  |  |
|  |  | FSN 603 Nutrient Changes Across the Food System\* (Dr. Camire) 3 cr.  |  |  |
| Fall 2026 | FSN 520 Food Product Development (Dr. Skonberg) | FSN 502 Food Preservation (Dr. Jin) 3 cr. | FSN 555 \*(Dr. Perry) 3 cr. | FSN 502 Food Preservation (Dr. Jin) 3 cr. |
|  | FSN 571 Technical Presentations 1 cr. (Dr. McNamara) |  | FSN 540 Advanced Clinical Topics 3 cr.  | FSN 524 Responsible Design, Conduct & Analysis of Research \*(Dr. Camire) 3 cr. |
|  |  |  |  | FSN 543 Communication in Nutrition & Food Technology \*(Professor Yerxa) 3 cr. |
|  |  |  |  |  |
| Spring 2027  | FSN 528 Food Microbiology (Dr. Perry) | FSN 545 Utilization of Aquatic Food Resources (Dr. Skonberg) 3 cr. | FSN 506 Nutritional Assessment (Dr. Therrien and Ms. Ouellette)  |  |
|  | FSN 529 Food Microbiology Lab (Dr. Perry) 2 cr. | FSN 585 Principles of Sensory Evaluation (Dr. Camire) 3 cr. | FSN 542 Sustainability, Nutrition and Health (Dr. Klimis-Zacas) 3 cr. |  |
|  | FSN 560 Research Methods in Community Nutrition (Dr. McNamara) 3 cr. | FSN 536 Food Laws & Regulations (Dr. Bushway) 3 cr. |  |  |
|  | FSN 575- Sensory Evaluation Laboratory (Dr. Camire) 1 cr. |  |  |  |
|  | FSN 671 /AVS 633 Adv. Graduate Seminar (Dr. Jin) 1 cr.  |  |  |  |

400-level class options for graduate students on campus. Prerequisites should be checked before adding these classes to the program of study. Graduate students can take up to 6 credits of 400-level classes.

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| **Fall** | **Spring even years** | **Spring odd years** |
| FSN 410 Human Nutrition & Metabolism (TBD) 3 cr. | FSN 401 Community Nutrition (Dr. McNamara) 4 cr. | FSN 401 Community Nutrition (Dr. McNamara) 4 cr. |
| FSN 412 Medical Nutrition Therapy I (TBD) 3 cr. | FSN 406 Nutr. Care of Older Adults (Dr. Camire & Dr. Therrien-Genest) 1 cr. | FSN 406 Nutr. Care of Older Adults (Dr, Camire & Dr. Therrien-Genest) 1 cr. |
| FSN 425 Contemporary Issues in the Food Industry (Dr. Skonberg) 1 cr. | FSN 415 Food Safety Systems- Prev. Controls for Human Food (Dr. Machado) 1 cr. | FSN 420 Medical Nutrition Therapy II (Dr. Klimis-Zacas) 4 cr. |
|  | FSN 420 Medical Nutrition Therapy II (Dr. Klimis-Zacas) 4 cr.  | FSN 430 Counseling & Diet Therapy (Ms. Molloy) 3 cr. |
|  | FSN 430 Counseling & Diet Therapy (Ms. Molloy) 3 cr. |  |
|  | FSN 450 Food Biotechnology (D. Skonberg) 3 cr. |  |
|  | FSN 485 Intro. Food Engineering (Dr. Jin) 3 cr. |  |
|  | FSN 486 Food Engineering Lab (Dr. Jin) 1 cr. |  |

**Course Descriptions- Descriptions are not yet available for courses in development**

FSN 501 Advanced Human Nutrition- Basic nutrition science with an emphasis on carbohydrate, lipid, protein, vitamin, mineral functions and metabolism. Genetic influences on nutrient needs and metabolism.

FSN 502 Food Preservation- Chemicals and processes (freezing, dehydration, canning, irradiation, extrusion) used to extend food quality and safety.

FSN 506 Nutritional Assessment: Covers methods of evaluating the nutritional status of individuals or groups of people by dietary assessment and nutrition-related health indicators.

FSN 508 Nutrition and Aging: Roles of nutrients, foods and supplements in maintaining health during aging. Online class with some live discussions. FSN 501 is recommended for background preparation.

FSN 524 Responsible Design, Conduct and Analysis of Research: Experimental design, ethical considerations, and statistics for responsible conduct of nutritional and medical research. An undergraduate statistics class is recommended as a prerequisite.

FSN 530 Integrative and Functional Nutrition: Review of alternative practices such as traditional Chinese medicine, Ayurvedics, homeopathy, naturopathy, herbal medicine, and dietary supplements and how these practices can be integrated with conventional dietetic practice. Special needs of different life stages and disease conditions are addressed. Prerequisite: FSN 501.

FSN 536 Food Laws and Regulations: Examination and discussion of federal, international and state laws and regulations applying to the processing, handling, distribution and serving of food products and dietary supplements. May not be taken in addition to FSN 436.

FSN 538 Food Fermentation: An overview of fermentation of various categories of foods by applying principles of microbiology. Includes discussion of microbial metabolic pathways of importance in microbial inoculants and the physicochemical changes that occur within the substrate matrix during the fermentation process.

FSN 539 Probiotics in Food: Formulation and Function: Introduces the process of assessing probiotic characteristics of microorganisms. Reviews current understanding of probiotic mechanisms and efficacy in humans with focus on administration via food products. Discusses the process of effective formulation of probiotic food products and related legal considerations.

FSN 540 Advanced Clinical Topics: A critical evaluation of medical nutrition therapy in the inpatient clinical setting. Application of the current medical literature to practice decisions. Nutritional goals for a variety of medical conditions are discussed. Prerequisite: An undergraduate course in medical nutrition therapy.

FSN 542 Sustainability, Nutrition and Health: This course explores sustainable practices when growing, processing, transporting, distributing, choosing, preparing, and consuming food and how these practices affect the tripod of sustainability, i.e. environment, society (health) and economy in the context of the “Farm to Healthy Body” model. Applications for health professionals are addressed.

FSN 543 Communication in Nutrition and Food Technology: This course is designed to provide preparation for effective delivery of oral and written presentations in the fields of Nutrition and Food Technology. The course will also explore the differences and similarities in presenting to the scientific community and lay audiences and finally, the course will study other forms of communication including blogs, podcasts, and social media.

FSN 545 Utilization of Aquatic Food Resources: Utilization and food quality of wild and farmed aquatic animals including production, chemical/physical properties, nutritional value, post-harvest changes, processing systems, regulatory issues, by-product utilization and food safety.

FSN 555 Organic and Natural Foods: Introduces organic and natural foods from an industry perspective. Discussion of food production and processing, legal issues, ingredient functionality, and controversies.

FSN 585 Principles of Sensory Evaluation: Introduction to sensory evaluation practices including difference and affective testing. Online class with scheduled synchronous discussions. Prior classes in Food Science, Statistics, and Psychology are strongly recommended. [This class is the one that explains how to perform sensory tests and choose the appropriate test for a situation.]

FSN 586 Sensory and Consumer Science Applications: Assessment of food behaviors and emotions, satiety, purchase intent, and other factors related to food selection. Online class with scheduled synchronous discussions. FSN 585 and FSN 524 are recommended as prerequisites.

FSN 603 Nutrient Changes in the Food System: Review of the changes in food nutrient and phytochemical composition and bioavailability from the farm through the processing and distribution to consumers.