

DIETETICS - GRADUATE PROGRAM

Interinstitution Graduate program

Dietetics is an interinstitutional distance education program offered through the Great Plains Interactive Distance Education Alliance (or GPIDEA). The student selects a home institution, which grants the degree. After admission at the home institution, the student has the option to complete courses at the participating universities: Iowa State University, Colorado State University, Kansas State University, North Dakota State University, Oklahoma State University, South Dakota State University, University of Kansas Medical Center, and University of Nebraska-Lincoln.

At Iowa State University, Dietetics is a specialization within the Master of Family and Consumer Sciences degree program (MFCS-Diet) that consists of 36 credits. This is a non-thesis option and a special project or creative component is required. Students typically complete the program in 6-8 semesters while employed full-time. Admission is limited to those who are Registered Dietitians or Registration-eligible Dietitians. A computer with minimum specifications, web access, and an email address are required for completing the program.

The department cooperates in the interinstitution Master of Family and Consumer Sciences program to offer a specialization in Dietetics. The Master of Family and Consumer Sciences-Dietetics is designed for the Registered Dietitian or Registration-eligible Dietitian. The 36 credit program is non-thesis and seeks to develop research skills, stimulate independent thought, and provide up-to-date knowledge in foods, nutrition, and foodservice/business management. This program prepares individuals to integrate and apply the principles from the biomedical sciences, human behavior, and management to design and lead effective food and nutrition programs in a variety of settings. Students may build a program of study from offerings of the partner institutions such as human nutrition, nutrient metabolism, biostatistics, health promotion/disease prevention, foodservice systems management, food science, lifespan nutrition, wellness, entrepreneurship, nutrition education, nutritional assessment and food safety. The online program is tailored for credentialed, practicing dietetics professionals who seek to enhance their knowledge in a specific area of dietetics practice or retool for new career opportunities in dietetics practice.

Admission procedures: Admission to the MFCS-Diet program requires exactly the same procedures as admission to the Graduate College. See. Graduate College section of this catalog.

Registration: Students choosing to receive their degree from Iowa State University complete all the admissions, registration and fee payment processes through ISU.

Courses primarily for graduate students, open to qualified undergraduates:

DIET 511: Research Methods

(3-0) Cr. 3. F.S.

Prereq: Enrollment in GP-IDEA MFCS in Dietetics

An overview of diverse research approaches focusing on methods for collecting and analyzing quantitative and qualitative data. www only. Only one of DIET 511 or FCEDS 511 may count toward graduation.

DIET 512: Nutritional Epidemiology

Cr. 3. Alt. S., offered odd-numbered years.

Important issues related to designing, conducting, and interpreting research on the role of diet or physical activity in the development of disease (& health) in human populations.

DIET 524: Financial Management and Cost Controls

(3-0) Cr. 3. SS.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Overview of the fundamental knowledge of financial management, managerial accounting, and operational cost controls for dietetics professionals. Topics include a review of managerial accounting concepts for not-for-profit organizations and for-profit organizations based on the Uniform System of Accounts, value and risk analysis, budgeting, asset management, franchising and management contracts, cost-volume-profit analyses, and operational applications for financial performance.

DIET 526: Obesity Across the Lifespan

(3-0) Cr. 3. F.

Exploration of the affects that obesity has on public health, the healthcare system, and society in general. Overview of strategies to prevent obesity across the lifespan.

DIET 530: Nutrition in Wellness

(3-0) Cr. 3. S.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Addresses wellness promotion through nutrition. Nutritional risk and protective factors will be examined in relation to public health and individual nutrition. www only.

DIET 532: Maternal and Child Nutrition

(3-0) Cr. 3. Alt. SS., offered even-numbered years.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Critical examination of behavioral, physiological, and public health issues impacting dietary and nutritional factors that support normal growth and development. Content focuses on early stages of the life cycle: gestation, lactation, infancy, preschool, school age, and adolescence. www only.

DIET 534: Nutrition Education in the Community

Cr. 3. S.

Prereq: Enrollment in GPIDEA MFCS in Dietetics

Principles and practices of teaching individuals and groups to translate nutrition knowledge into action. Emphasis on research in and evaluation of nutrition education. Online only.

DIET 538: Nutrition: A Focus on Life Stages

(3-0) Cr. 3. F.Alt. SS., offered odd-numbered years.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Explores influence of normal physiological stresses on nutritional needs throughout the life span. Evaluates dietary intake and identification of appropriate community nutrition services in on-line discussions. Specific considerations, such as the influence of age and cultural heritage, are incorporated. www only.

DIET 540: Nutrition and Physical Activity in Aging

(Cross-listed with GERON). (3-0) Cr. 3. F.

WWW only. Basic physiologic changes during aging and their impacts in health and disease. The focus will be on successful aging with special emphasis on physical activity and nutrition. Practical application to community settings is addressed.

DIET 541: Understanding Food Culture

Cr. 3. Alt. S., offered even-numbered years.

Survey of topics that affect how we perceive food in the modern world. Food is examined as a badge of cultural identity, focus of media scrutiny and promotion, symbol of religion, and driver of technology.

DIET 544: Pediatric Clinical Nutrition

(3-0) Cr. 3. F.

Prereq: enrollment in GP-IDEA MFCS in dietetics

Examines the physiological, biochemical and nutritional aspects of disease processes relevant to infants and children up to 18 years of age. Discussion of medical nutrition therapy for a variety of medical conditions in this population including inborn errors of metabolism, food hypersensitivity, obesity, and diseases of the major organ systems. www only.

DIET 546: Phytochemicals

(3-0) Cr. 3. Alt. F., offered even-numbered years.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Overview of phytochemicals (non-nutritive biologically active compounds) from fruits, vegetables, cereals and oilseeds. Covers recent findings of chemistry, physiological functions, and potential health implications of phytochemicals. www only.

DIET 547: Functional Foods in Chronic Disease Prevention

(3-0) Cr. 3. Alt. F., offered odd-numbered years.

Examination of nutritional science, food science, regulatory principles, and nutrient metabolism to understand and explain functional foods, nutraceuticals, and dietary supplements. Additionally students will evaluate the biochemical basis, technologies, legal requirements, and clinical assessment in the marketplace.

DIET 551: Advanced Nutrition: Nutrigenomics, Nutrigenetics & Advanced Lipid Metabolism in Human Nutrition

Cr. 3. S.

Exploration and integration of topics and ideas that are at the forefront of the field of nutritional science. Examination of topics that are new and/or controversial and have implications that range from the cellular/molecular/biochemical level up to clinical/educational level. Emphasis on the integrative and complex nature of human nutrition research from basic science to clinical studies to population studies and dietary recommendations.

DIET 554: Statistics

(3-0) Cr. 3. Alt. F., offered irregularly. Alt. S., offered irregularly. Alt. SS., offered irregularly.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Tools used to make statistical decisions. Major emphasis on explanation and understanding of important concepts involved; basic theme is understanding of data and methods used to analyze such data. www only. Only one of DIET 554 or Stat 401, 495, 542 may count toward graduation by students in the GPIDEA Dietetics program.

DIET 555: Public Health Nutrition

Cr. 3. F.S.

Prereq: Admission into graduate-level program or instructor permission.

Examines U.S. public health and nutrition concerns in diverse U.S. populations, examines nutritional status in communities, looks at health communication, and considers nutrition policies and community-based nutrition interventions. Students explore roles of dietitians, nutritionists, and others in developing and delivering nutrition policies and interventions in U.S. communities.

DIET 556: Advanced Nutrition: Micronutrients

(3-0) Cr. 3. S.SS.

Prereq: BBMB 404 or BBMB 420 or equivalent; enrollment in GP-IDEA MFCS in Dietetics

The course features interrelationships of micronutrients in terms of biochemistry, physiology, genetics, and nutrition. Emphasis of the course is on developing understanding of how the coordination of structure and function is related to metabolic needs of the cell and its response to the environment. This integrated approach forms the basis for evaluating the micronutrient needs of humans in both normal and altered metabolic states. Only one of DIET 556 or NUTRS 502 may count toward graduation.

DIET 558: Advanced Nutrition: Macronutrients

(3-0) Cr. 3. SS.

Prereq: BBMB 404 or BBMB 420 or equivalent; enrollment in GP-IDEA MFCS in Dietetics

Integration of the molecular, cellular and physiological aspects of macronutrients and energy metabolism in mammalian systems. Dietary energy, carbohydrates, fiber, lipids, proteins, their interactions, metabolic consequences, and major research methodologies. www only. Only one of DIET 558 or NUTRS 501 may count toward graduation.

DIET 560: Advanced Medical Nutrition Therapy

(3-0) Cr. 3. SS.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Pathophysiology of selected acute and chronic disease states and their associated medical problems. Specific attention directed to medical nutrition needs of patients in the treatment of each disease state. www only. Only two of DIET 560 or NUTRS 561, 564 may count toward graduation.

DIET 565: International Nutrition and World Hunger

(3-0) Cr. 3. F.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Identification and assessment of malnutrition in low-income countries. Social, cultural, political, economic, and geographic determinants of malnutrition. Protein-energy malnutrition, vitamin and mineral deficiencies. Intervention approaches; international efforts and local sustainability. www only.

DIET 566: Nutrition Counseling and Education Methods

(Cross-listed with FS HN). (2-2) Cr. 3. F.S.

Prereq: FS HN 361 and FS HN 362

Application of counseling and learning theories with individuals and groups in community and clinical settings. Includes discussion and experience in building rapport, assessment, diagnosis, intervention, monitoring, evaluation, and documentation. Literature review of specific counseling and learning theories.

DIET 568: Entrepreneurship Theory and Practice

(3-0) Cr. 3. Alt. SS., offered odd-numbered years.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Definition and discussion of entrepreneurship and its importance to economic and business environment. www only.

DIET 569: Dietary and Herbal Supplements

(3-0) Cr. 3. SS.

Prereq: Enrollment in GP-IDEA MFCS in Dietetics

Develop skills to partner with patients in making dietary supplement decisions. Explore the safe, efficacious use of botanicals and supplements in nutritional support of aging, maternal health and wellness. Discussions on supplementation in the prevention and treatment of chronic disease include: arthritis, cancer, cardiovascular, diabetes, digestive, liver and renal disorders.

DIET 570: Nutrition and Human Performance

(3-0) Cr. 3. S.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Develop an understanding of nutrition based on knowledge of the biochemical and physiological process and functions of specific nutrients in meeting nutritional requirements. Emphasis on the relationship of optimal nutrition and physical efficiency and performance. www only.

DIET 571: Leadership in Dietetics

(3-0) Cr. 3. SS.

Using leadership theories to develop the fundamental concepts and skills to bridge the gap between theory and practice. Students will be able to successfully evaluate classic and contemporary leadership theories, investigate current leadership trends and identify positive applications in the dietetics community.

DIET 572: Current Issues and Trends

(3-0) Cr. 3. F.S.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

Overview of current topics, issues, and trends in dietetics practice. www only.

DIET 573: Healthcare Administration

(3-0) Cr. 3. Alt. SS., offered even-numbered years.

Prereq: enrollment in GP-IDEA MFCS in Dietetics

A comprehensive review of today's health care institutions and their response to the economics, social, ethical, political, legal, technological, and ecological environments. www only.

DIET 574: Nutrition and Immunology

(3-0) Cr. 3. Alt. S., offered odd-numbered years.

Principles and issues related to nutrition and immunology. Impact of nutrients and nutritional status on immune responses. Impact of disease states on nutritional status.

DIET 576: Diabetes Medical Nutrition Therapy

Cr. 3.

Prereq: Course in medical nutrition therapy or permission of instructor

An in-depth study of diabetes management with emphasis in nutrition care. Topics will include diabetes pathophysiology, clinical care guidelines, basic pharmacology, clinical nutrition education and counseling strategies, and nutrition care planning.

DIET 595: Grant Writing for the Professional

(Cross-listed with FS HN). (3-0) Cr. 3. SS.

Prereq: Enrollment in GP-IDEA MFCS in Dietetics.

Identifying external funding sources, developing a research question and hypothesis, and writing a grant proposal. Offered online only.

DIET 597: Nutritional Aspects of Oncology

(Cross-listed with FS HN, NUTRS). (3-0) Cr. 3. Alt. S., offered even-numbered years.

Prereq: B.S. in nutrition, dietetics, biology, or related discipline.

Understanding of basic cancer biology and methodology used to study nutrition and cancer relationships. Using current research as a basis, the role of nutrition in specific cancers will be explored. Students will learn about sources of information for cancer prevention programs, and how to apply this information to clinical patient management.

DIET 598: Clinical Aspects of Nutrition Support

(3-0) Cr. 3. S.

Prereq: Enrollment in GPIDEA - Dietetics program

Specialized nutrition assessment and support. Review of energy expenditure and substrate utilization in specific disease states. Current Methods for the initiation and management of enteral and parenteral nutrition therapy including access, metabolic and mechanical complications. Evaluation of nutrition support methodology in selected disease states.

DIET 599: Creative Component

Cr. arr. Repeatable. F.S.SS.

Prereq: Enrollment in GPIDEA MS Dietetics

For non-thesis option only.