

# DIETETICS (DIET)

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## **Any experimental courses offered by DIET can be found at:**

registrar.iastate.edu/faculty-staff/courses/explisting/ (<http://www.registrar.iastate.edu/faculty-staff/courses/explisting/>)

## **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. Only one of DIET 511 or FCEDS 511 may count toward graduation.

### **DIET 512: Nutritional Epidemiology**

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

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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 526: Obesity Across the Lifespan**

(3-0) Cr. 3. F.

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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 and 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.

### **DIET 531: Nutrition Therapy for Eating Disorders**

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

*Prereq: Enrollment in MFCS-Dietetics and a course in medical nutrition therapy or consent of instructor.*

An online study of eating disorders management and nutrition care. Topics include eating disorders medical complications, clinical care guidelines, basic pharmacology, clinical nutrition education, nutrition care planning, psychology of eating disorders, team collaboration, and therapeutic modalities for nutrition counseling.

### **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.

### **DIET 534: Nutrition Education in the Community**

Cr. 3. S.

*Prereq: Enrollment in GP-IDEA 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.

### **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.

### **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: Food Culture**

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

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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 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.

**DIET 547: Functional Foods in Chronic Disease Prevention**

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

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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 548: Nutrition and Physical Activity Assessment**

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

Introduction to a variety of nutrition and physical activity assessment tools. Opportunity to discuss the strengths and weaknesses of different tools and gain experience collecting, analyzing, and interpreting nutrition and physical activity data.

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

Cr. 3. S.

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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. 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: Enrollment in GP-IDEA MFCS in Dietetics*

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: Micronutrients in Human Nutrition**

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

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

Interrelationships of micronutrients in terms of biochemistry, physiology, genetics, and nutrition. Emphasis 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 Human 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. 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. 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.

**DIET 566: Nutrition Counseling and Education Methods**

(2-2) Cr. 3. F.S.

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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.

**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.

**DIET 571: Foundation of Leadership in Dietetics**

(3-0) Cr. 3. SS.

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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 or 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.

**DIET 574: Nutrition and Immunology**

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

*Prereq: Enrollment in GP-IDEA MFCS in Dietetics*

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; enrollment in GP-IDEA MFCS in Dietetics*

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 597: Nutritional Aspects of Oncology**

Cr. 3. Alt. S., offered odd-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 GP-IDEA MFCS in Dietetics*

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 GP-IDEA MFCS in Dietetics*

For non-thesis option only.