

Food and Nutrition

COLLEGE OF AGRICULTURAL SCIENCES

Graduate Faculty:

Apgar, Gary A., Associate Professor, Ph.D., Virginia Polytechnic Institute, 1994; 1998. Monogastric nutrition, swine production.

Ashraf, Hea-Ran Lee, Professor, *Emerita*, Ph.D., Iowa State University, 1979; 1980.

Banz, William J., Professor and *Chair*, Ph.D., University of Tennessee, 1995; 1995. Human nutrition, nutritional physiology.

Davis, Jeremy., Assistant Professor, Ph.D., Iowa State, 2008; 2008. Molecular nutrition and physiology.

Endres, Jeannette M., Professor, *Emerita*, Ph.D., St. Louis University, 1972; 1975.

Gill, Lynn T., Instructor, M.S., Southern Illinois University Carbondale, 1996. Medical nutrition therapy.

Girard, T.C., Associate Professor, *Emerita*, M.S., University of Wisconsin-Stout, 1992; 1993.

Green, Brenda L., Instructor, R.D., M.S., Southern Illinois University Carbondale, 2000. Community Nutrition.

Jones, Karen L., Professor, Ph.D., Texas A&M, 1999; 1999. Animal biotechnology, genetics reproductive physiology.

Roth, Sara Long, Professor, *Emerita*, Ph.D., Southern Illinois University Carbondale, 1991; 1990. Medical nutrition therapy, nutrition education.

Smith, Sylvia F., Associate Professor, Ph.D., University of Tennessee 2007; 2007. Food Service Management, Culinary Tourism.

Welch, Patricia, Professor, *Emerita*, Ph.D., Southern Illinois University, 1982.

The Department of Animal Science, Food and Nutrition offers a Master of Science degree in Food and Nutrition with three concentration options: *community nutrition*, *hospitality and tourism administration*, and *nutritional sciences*. For program details not included in this description, prospective students may visit coas.siu.edu.

This program requires a nonrefundable \$65 application fee that must be submitted with the application for Admissions to Graduate Study in Animal Science, Food and Nutrition. Applicants may pay this fee by credit card if applying electronically. Applicants submitting a paper application must pay by personal check, cashier's check, or money order made out to SIU, and payable to a U.S. Bank.

Community Nutrition Concentration

The *community nutrition* curriculum incorporates the public health nutrition knowledge and skills criteria of the Association of Graduate Programs in Public Health Nutrition, Inc. In addition to master's degree work, students complete an accredited dietetic internship that qualifies them to take the registration examination for dietitians. The Accreditation Council for Education in Nutrition and Dietetics (ACEND) is a specialized accrediting body recognized by the United States Department of Education and the Council for Higher Education Accreditation. The Dietetic Internship program at SIU has been granted accreditation through 2020 by ACEND of the Academy of Nutrition and Dietetics. In addition to admission requirements below, students need a Verification Statement for

having completed a Didactic Program in Dietetics issued by a ACEND-accredited program director.

Admission

Applicants must meet the following criteria to be considered for admission to the program. Everyone, United States citizens and non-citizens alike, must complete a Didactic Program in Dietetics (DPD) accredited by ACEND. ACEND establishes and enforces "Eligibility Requirements and Accreditation Standards" for nutrition/dietetics education. It accredits education programs (including bachelor's and graduate level *Didactic Programs in Dietetics*) that prepare students for careers as "Registered Dietitians". More information about ACEND is available online at eatright.org/acend.

1. A baccalaureate degree from a regionally accredited college or university (completed within the last 10 years)
2. Completion of a Didactic Program in Dietetics (DPD) as accredited by the Accreditation Council for Education in Nutrition and Dietetics. Students should supply appropriate documentation from their DPD Directors that is to be submitted with their application.
3. A grade point average of 3.0 or higher (where 4.0 = A) is recommended.
4. The Graduate Record Exam (GRE) is required for all applicants.
5. Desire to complete a Master of Science degree in Food and Nutrition with a concentration in community nutrition combined with a 7 and 1/2 month dietetic internship with community nutrition emphasis.
6. International students who have not completed a Didactic Program in Dietetics should review the "International Fact Sheet" on the web at www.eatrightacend.org/ACEND/context.aspx?id=6442485501. This is a 10-page document that answers many questions about education and credentialing requirements for *registered dietitians* and *dietetic technicians registered* in the United States.
7. DICAS. Applicants to SIU combined MS/DI program must submit their application through the Dietetic Internship Centralized Application System at portal.dicas.org.
8. **D&D Matching.** Applicants to Dietetic Internships (DI) must register for matching with D&D Digital to create/modify their prioritized list of dietetic internships for computerized matching at: dnddigital.com. There is a \$50 registration fee for matching that is due with prioritized program rankings. **SIU's Match Number is 438.** SIU matches only during the spring. Students who match with SIU through the spring matching process are enrolled in SIU's program in August (fall semester).

Program Completion Requirements

Unless otherwise stated, policies of the University and Graduate School shall establish the minimum requirements for retention in and graduation from the program. This includes a minimum grade point average for graduation of 3.0 (4.0 point scale).

The *Community Nutrition* concentration requires 39-41 credit hours from the following: FN 540, FN 574, FN 585, ANS 500, FN 530, HED 593, or HED 583, QUAN 506, FN 581, (FN 599, FN 593 and/or electives), FN 580A, FN 580B, FN 580C.

The thesis option requires a committee composed of at least two program faculty members and one faculty member from outside of department. The research paper option will require a committee composed of at least three faculty members and an additional three credits of elective coursework. The Master's degree candidates in the thesis or research paper options must pass an oral examination conducted by their committee. The professional track option will require an additional six credits of elective coursework.

Hospitality and Tourism Administration Concentration

Students applying to the *hospitality and tourism administration* concentration are expected to have an undergraduate degree in hospitality and tourism, business, or closely related field. Students are also expected to have strong academic, analytical, and communication skills. Students applying to the *hospitality and tourism administration* concentration without a hospitality and tourism degree must pass a comprehensive exam or take three 400-level foundation courses related to their chosen career path.

Admission

Admission is competitive and requires a bachelor's degree with a minimum 2.75 GPA, GRE, GMAT, or MAT, three letters of recommendation, and a personal statement. Selection for the program is recommended by committee and Department Chair to the Graduate School Admissions Office for final evaluation and approval.

Program Completion Requirements

Unless otherwise stated, the policies of the University and of the Graduate School shall establish the minimum requirements for retention in the graduation from the program. This includes a minimum grade point average for graduation of 3.0 (4.0 point scale).

The *hospitality and tourism administration* concentration requires 31 credit hours from the following: FN 521A,B,C, QUAN 506, FN 531, FN 535, FN 561, and either FN 599 or FN 593. The graduate committee will assist with the selection of an additional six credit hours of graduate coursework appropriate for their field of study. This concentration requires a minimum of 36 credit hours to graduate. The graduate student's committee will be composed of at least two departmental faculty members and one faculty member from outside of department. Master's degree candidates must pass a comprehensive oral examination conducted by their committee, covering all graduate work including their thesis or research paper.

Nutritional Sciences Concentration

Students applying to the *nutritional sciences* concentration are expected to have an undergraduate degree in biological sciences, such as nutrition, physiology, zoology, or a related field. Students are also expected to have strong academic and analytical skills.

Admission

A grade point average of 3.0 or higher (4.0 = A) is recommended for program entrance. The Graduate Record Exam (GRE) is required for all applicants. Students should submit a statement of career goals and interest in completing the master's degree, as well as three letters of recommendation from former professors or employers.

Program Completion Requirements

Unless otherwise stated, the policies of the University and of the Graduate School shall establish the minimum requirements for retention in and graduation from the program. This includes a minimum grade point average for graduation of 3.0 (4.0 point scale). The *nutritional sciences* concentration requires 12 to 16 credit hours from the following: FN 581, QUAN 506, QUAN 508 or WED 561, FN 599, or FN 593. The graduate committee will assist with the selection of an additional 14 to 18 credit hours of graduate coursework appropriate for their concentration. This concentration requires a minimum of 32 credit hours to graduate. The graduate student's committee will be composed of at least two departmental faculty members and one faculty member from outside of department. Master's degree candidates must pass a comprehensive oral examination conducted by their committee, covering all graduate work including their thesis or research paper.

Courses (FN)

Food and Nutrition is a program within the Department of Animal Science, Food and Nutrition.

FN 515-3 Energy and Protein Utilization. (Same as ANS 515) Energy and protein utilization including digestion, absorption, and metabolism as related to mammalian physiology. Prerequisite: course in organic chemistry.

FN 516-3 Minerals and Vitamins. (Same as ANS 516) Basic and applied principles of mineral and vitamin metabolism. Emphasis on metabolic functions, reaction mechanisms and interrelationships. Prerequisite: course in organic chemistry.

FN 520-2 Advanced Nutrition. Prerequisite: FN 420 or equivalent.

FN 521A-3 to 9 (3 per topic) Readings in Hospitality and Tourism-7-9 Year Literature Review. Advanced seminar class and nine-year historical literature review of issues affecting the hospitality and tourism industry. Sections (A) through (C) may be taken only once each.

FN 521B-3 to 9 (3 per topic) Readings in Hospitality and Tourism-4-6 Year Literature Review. Advanced seminar class and nine-year historical literature review of issues affecting the hospitality and tourism industry. Sections (A) through (C) may be taken only once each.

FN 521C-3 to 9 (3 per topic) Readings in Hospitality and Tourism-Current to 3 Year Literature Review. Advanced seminar class and nine-year historical literature review of issues affecting the hospitality and tourism industry. Sections (A) through (C) may be taken only once each.

FN 530-3 Advanced Nutritional Assessment and Education. Community assessment methods, specifications or particular tools used and how these tools can be applied to particular conditions of concern in community nutrition. The methods of education for individuals and populations using dietary, biochemical, anthropometrics and physical assessment data will be taught. Restricted to major or consent of instructor.

FN 531-3 Hospitality Managerial Accounting. Theory and practice of managerial accounting techniques in the hospitality industry.

FN 535-3 Advanced Hospitality Marketing Management. Analysis of marketing processes within hospitality, tourism and related organizations. Focus is on design and implementation of marketing research and analysis, as well as creation of the

strategic marketing plan.

FN 540-3 Nutrition Policy, Programs and Services. The study of policies, programs and services concerned with prevention and treatment of nutrition problems in the population. Prerequisite: HND 480 with a grade of C or better. Restricted to Food and Nutrition majors or consent of instructor.

FN 545-3 Economics of Sustainable Tourism Development. Development of sustainable tourism destinations will be examined. Introduction to research methods involved in conducting economic impact studies, feasibility studies and conversion studies.

FN 551-3 Strategic Destination Management. Responsibilities of destination management organizations from an international perspective will be examined. Primary focus is destination product development and management. Destination competitiveness and marketing, specifically branding and positioning will also be discussed.

FN 560-3 Advanced Food Service Management. Course will provide opportunities in food service facility management to demonstrate leadership, financial management skills, food safety initiatives, contingency planning, and marketing techniques. Topics include sustainable food service practices, human resource management, culinary techniques, HACCP planning and theories. Graduate students will experience a supervisory role while managing undergraduate students at food service facilities.

FN 561-3 Service Organization and Management. Covers topics such as motivation, group dynamics, leadership, organization structure, decision making, conflict resolution, and Organizational Development. Focus is on strategic leadership to prepare individuals and organizations to excel within a changing environmental landscape toward delivery of a quality service relationship.

FN 565-3 Advanced Convention Management and Service. Strategic relationships between meeting planner, client, facility and suppliers will be examined. Focus will be on a practical approach to convention planning and management. Students will be required to participate in planning as well as attending regional meetings.

FN 574-3 Advanced Medical Nutrition Therapy. In-depth study of the application of nutrition to the management of disease states with emphasis on current treatment and complex metabolic abnormalities. Prerequisite: HND 470.

FN 580A-3 Nutrition Practicum in the Community-Clinical Rotation. Designed to provide practicum experiences in dietetics for students completing the Master's in Food and Nutrition. Prerequisite: FN 585. Special approval needed from the instructor.

FN 580B-3 Nutrition Practicum in the Community-Management Rotation. Designed to provide practicum experiences in dietetics for students completing the Master's in Food and Nutrition. Prerequisite: FN 585. Special approval needed from the instructor.

FN 580C-3 Nutrition Practicum in the Community-Public Health Nutrition Rotation. Designed to provide practicum experiences in dietetics for students completing the Master's in Food and Nutrition. Prerequisite: FN 585. Special approval needed from the instructor.

FN 581-1 to 2 (1,1) Graduate Seminar in Community Nutrition. A discussion of current topics and literature in community

nutrition and community nutrition programs. Provides a forum for student and faculty presentation, and review of current research efforts. Encourages integration of the knowledge gained from the didactic and experiential learning prior to food service management, medical nutrition therapy, and community nutrition practicum experiences. Restricted to major or consent of instructor. Maximum of one hour per semester. Course fee: \$10.

FN 585-3 Advanced Community Nutrition. A presentation and examination of issues and programs in food and nutrition programs. Elements including the organization and management of quality nutrition services for the prevention of disease and promotion of health will be identified and applied to community programs.

FN 590-1 to 3 Readings in Food and Nutrition. Individual readings in food and nutrition under graduate faculty guidance. Special approval needed from the instructor.

FN 592-1 to 3 Global Research in Agriculture. (Same as ANS 592) Research interest in animals unique to certain regions of the world is a growing field to graduate students interested in world sustainable agricultural practices. This class is designed for students interested in taking research based information and skills from Southern Illinois University and applying it to projects with animals native to certain regions of the world to improve productivity and sustainability. This course provides graduate students interested in global and sustainable research the opportunity to conduct their research and training on regional animals not traditionally found in North America (eg. camels, water buffalo, kangaroo,... etc).

FN 593-1 to 3 Individual Research. Investigation of a problem in food and nutrition under the supervision of an approved graduate faculty member. Graded S/U only.

FN 599-1 to 6 Thesis. Credit is given for a Master's thesis when it is accepted and approved by the thesis committee. Graded S/U only.

FN 601-1 Continuing Enrollment. For those graduate students who have not finished their degree programs and who are in the process of working on their dissertation, thesis, or research paper. The student must have completed a minimum of 24 hours of dissertation research, or the minimum thesis, or research hours before being eligible to register for this course. Concurrent enrollment in any other course is not permitted. Graded S/U or DEF only.

Courses (HND)

Human Nutrition and Dietetics

HND 410-3 Nutrition and Wellness Education. This course explores research, theories and practices that influence human health behavior. Educational principles associated with behavior change including health literacy, assessing populations at risk, and designing effective health communication strategies are examined. Theories to explain human behavior, such as the Health Belief Model, Social Cognitive Theory, Transtheoretical Model, and Social Ecological Model will be studied, particularly as they relate to health education programming and how individual behavior is influenced. Prerequisite: HND 321.

HND 420-3 Recent Developments in Nutrition. Critical study of current scientific literature in nutrition. Prerequisite: HND 320.

HND 425-3 Biochemical Aspects in Nutrition. (Same as ANS

425) The interrelationship of cell physiology, metabolism and nutrition as related to energy and nutrient utilization, including host needs and biochemical disorders and diseases requiring specific nutritional considerations. Prerequisite: ANS 215 or HND 320, CHEM 140B, PHSL 201 and 208.

HND 445-3 Nutrition for Sport and Exercise. This course presents the metabolic and physiologic basis for macronutrient and micronutrient requirements during training, competition/performance, and recovery. The course begins with a brief overview of nutrition and exercise metabolism, followed by examination of nutritional requirements for sport and exercise, and concluding with a discussion of the practical aspects of nutrition related to athletes and exercise enthusiasts. Restricted to Junior, Senior, or Graduate Standing or permission of instructor.

HND 461-3 Service Organization and Management. (Same as HTA 461) Managerial aspects of the hospitality industry as related to provision of quality service. Organizational structures, management techniques, decision-making abilities, ethics, leadership, and human resource issues are examined. A grade of C or better required. Prerequisite: HTA 202, HTA 380 with a grade of C or better. Restricted to junior standing or consent.

HND 470-3 Medical Nutrition Therapy I. This is the first in a 2-course sequence of the study of pathophysiology and principles of medical nutrition therapy for various disease states. Application of Nutrition Care Process, nutrition screening and assessment, and medical record documentation. Prerequisite: HND 320, HND 321, AH 105, CHEM 140B, PHSL 201 and 208. Restricted to HND students.

HND 475-3 Nutrition Through the Life Cycle. This course will review nutrition during major phases of the life cycle. It will include units on: women's health during the preconception period pregnancy and lactation; infancy; childhood; adolescence; and older adults (65+). Students will complete life cycle projects and case studies for each phase of life throughout the course. Prerequisite: HND 320. Restricted to HND major.

HND 480-3 Community Nutrition. This course will provide a general foundation of Community Nutrition and how the Registered Dietitian/Community Nutritionist works in a community setting. This course will cover areas such as determining needs for nutrition education/intervention, public policy, supplemental nutrition programs, funding and grant writing. Prerequisite: HND 475. Restricted to HND major.

HND 485-3 Advanced Nutrition. This course applies advanced principles of biochemistry and physiology to expand on basic nutrition information and explains the role of nutrients from cellular and mechanistic aspects. Prerequisite: HND 320, 425.

HND 490-3 Practicum in Sport Nutrition and Wellness. This is an opportunity to gain field experience in wellness and sports nutrition and collaborate with peers to share experiences and work through a variety of problems. It is a "capstone" course: one that brings together the theory, knowledge, and skills that you've gained through completion of the Nutrition curriculum that you may apply in a live setting. The goal of this course is to expose students to a variety of situations they may encounter in a wellness and/or sports nutrition profession. Restricted to senior standing or instructor approval.

HND 495-3 Nutrition and Obesity. This course will examine the multifactorial etiology of obesity, its corresponding health

consequences, and the role of diet in prevention and treatment of obesity and its related comorbidities. At the end of this course, students will be able to (i) understand basic physiological and metabolic concepts underlying the development of obesity; (ii) discuss the health consequences of obesity across the lifespan; and (iii) describe the nutrition-related approaches for prevention and treatment of obesity. Prerequisite: HND 425 or concurrent enrollment.

Courses (HTA)

Hospitality and Tourism Administration

HTA 415-3 Gaming Management. Introduction to the main components involved in the management of gaming enterprises, including an overview of legalized casino gaming in the United States, profit structure of casinos, organizational structures, Louisiana gaming law, casino drop and count procedures, cage operations, suspicious activity reporting, slot and table games management, and race and sports book operations. Special emphasis to be placed on casino marketing and promotion of responsible gaming. Prerequisite: HTA 202 with a grade of C or better.

HTA 435-3 Hospitality Marketing Management. This course concentrates on marketing for hotels, restaurants and tourism-related entities. Industry specific problems and characteristics will be examined. Students will develop a comprehensive marketing plan. The starting point for the development of hospitality marketing strategy assumes basic marketing knowledge has been derived from completing a previous marketing course. The course is taught in a blended environment; students will attend class one day each week and view lectures and other material via SIU Online. A grade of C or better required. Prerequisite: HTA 202 and MKTG 304 with grades of C or better.

HTA 440-3 Hospitality Risk Management. Introduction to risk management, security, liability and contract management applicable to the awareness and/or operations of hotels, restaurants and resorts. A grade of C or better required. Prerequisite: HTA 202.

HTA 445-3 Sustainable Tourism Planning and Development. This course focuses on sustainable tourism development as management of all resources in such a way that we can fulfill economic, social, and aesthetic needs while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems. Prerequisite: HTA 202 or consent of instructor.

HTA 450-3 Event Marketing and Sponsorships. Strategic marketing and procurement of sponsors as they relate to events will be examined. Techniques related to association, corporation, and other special events will be analyzed and applied.

HTA 455-3 Event Risk Management and Safety. Techniques used to reduce event risk and liability and increase safety for event attendees will be discussed. Crowd control, fire safety, attendee behavior, food and beverage safety, emergency medical services, among others, will be explored.

HTA 460-4 Food Service Management. The course includes practical experience in the operational administration of a food service facility. Provides students an opportunity to exercise their ability and creativity to manage a noon luncheon service. The lab involves situations in which students fill the different

roles involved with food service management. A grade of C or better required. Prerequisites: HTA 202, HTA 206, HTA 360, HTA 373 with grades of C or better. Restricted to junior standing. Lab fee: \$30.

HTA 461-3 Service Organization and Management. (Same as HND 461) Managerial aspects of the hospitality industry as related to provision of quality service. Organizational structures, management techniques, decision-making abilities, ethics, leadership, and human resource issues are examined. A grade of C or better required. Prerequisite: HTA 202, HTA 380 with a grade of C or better. Restricted to junior standing or consent.

HTA 465-3 Convention Management and Services. This course serves as a primer to the understanding of the role the meeting and convention planning business plays in hotel profitability. Students will explore successful procedures, practical insight, and foundational knowledge to succeed in convention management and services. Grade of C or better. Prerequisite: HTA 202 with a grade of C or better.

HTA 470-3 Hospitality Facilities Management. The course provides a comprehensive survey to manage the physical plants of hotels and food service establishments by working with the engineering and maintenance divisions in an effective and efficient manner. Areas of emphasis will include maintenance, energy conservation, environmental impact, and facilities management, with specific issues such as maintenance needs as they affect operations, property expenditures and resources, and a balance between guest satisfaction and environmental sustainability being addressed. A grade of C or better required. Prerequisite: HTA 202 or consent of instructor.