### NUTRITION AND HEALTH SCIENCES (NUTR)

#### NUTR 100 Healthy Living
**Description:** Various risk factors and personal behaviors that affect health. Practical methods for self-assessments and improving and maintaining physically active and healthy eating habits designed to enhance awareness of short- and long-term risks and to achieve a higher level of wellness. Use of "Blackboard" required.

- **Credit Hours:** 3
- **Max credits per semester:** 3
- **Max credits per degree:** 3
- **Format:** LEC
- **Prerequisite for:** FITN 112B; NUTR 252; NUTR 256; NUTR 356; NUTR 454

#### NUTR 131 The Science of Food
**Crosslisted with:** CHEM 131, FDST 131
**Description:** General scientific concepts in biology, chemistry, and physics using food as a model. What food is from both chemical and nutritional perspectives, and the fate of food from when it leaves the farm to when it becomes a part of the individual. Assists students in making intelligent decisions about many food related controversial issues (e.g., food irradiation, food additives, health foods).

- **Credit Hours:** 3
- **Max credits per semester:** 3
- **Max credits per degree:** 3
- **Format:** LEC
- **Prerequisite for:** FDST 131L; FDST 205; FDST 280
- **ACE:** ACE 4 Science

#### NUTR 145 Food Literacy
**Prerequisites:** NUTR majors only
**Description:** Food safety and sanitation, proper use of basic kitchen equipment, food identification, proper handling and preparation, menu planning, food purchasing, and sensory evaluation.

- **Credit Hours:** 1
- **Max credits per semester:** 1
- **Max credits per degree:** 1
- **Format:** LAB

#### NUTR 150 Career Preparation in Nutrition and Health Sciences
**Description:** Process of career preparation and planning. Philosophy and goals of academic programs, curricula, certifications, career opportunities and graduate programs in the Department of Nutrition and Health Sciences.

- **Credit Hours:** 2
- **Max credits per semester:** 2
- **Max credits per degree:** 2
- **Format:** LEC

#### NUTR 205 Asian Martial Culture
**Description:** Theoretical and experiential analysis of the martial arts of Asia from historical, anthropological, educational, philosophical, cultural, religious, political, and sociological perspectives and their impact on contemporary Asian and global society.

- **Credit Hours:** 3
- **Max credits per semester:** 3
- **Max credits per degree:** 3
- **Format:** LEC

#### NUTR 213 Meat Specifications and Procurement
**Crosslisted with:** ASCI 213
**Notes:** For those students who have an interest in a career in Culinary Science, Meat Science, and/or Dietetics.
**Description:** Selecting and purchasing meat for the hotel, restaurant, institutional industry, and the retail markets.

- **Credit Hours:** 3
- **Max credits per semester:** 3
- **Max credits per degree:** 3
- **Format:** LEC
- **Prerequisite for:** ASCI 343, NUTR 343

#### NUTR 230 Peer Health Education
**Prerequisites:** Permission
**Notes:** Requires serving as a Wellness Advocate in the University living units to gain experience in utilizing the information learned.
**Description:** The role of Wellness Advocate in the promotion of the health and wellness needs of college students. Techniques for promoting the adoption of lifestyle choices for lifelong health and well being.

- **Credit Hours:** 1-2
- **Min credits per semester:** 1
- **Max credits per semester:** 2
- **Max credits per degree:** 2
- **Format:** LEC

#### NUTR 244 Scientific Principles of Food Preparation
**Prerequisites:** Sophomore standing; FACS or HRTM or NUTR major
**Description:** Chemical, physical, sensory, and nutritional principles of food preparation.

- **Credit Hours:** 3
- **Max credits per semester:** 3
- **Max credits per degree:** 3
- **Format:** LEC
- **Prerequisite for:** NUTR 371

#### NUTR 245 Scientific Principles of Food Preparation Laboratory
**Prerequisites:** Must enroll in both NUTR 244 (lecture) and NUTR 245 (lab)
**Description:** Application of chemical, physical, sensory, and nutritional principles of food preparation.

- **Credit Hours:** 1
- **Max credits per semester:** 1
- **Max credits per degree:** 1
- **Format:** LAB
- **Prerequisite for:** NUTR 371

#### NUTR 250 Human Nutrition and Metabolism
**Prerequisites:** 4 hours chemistry or biological sciences
**Description:** Introduction to nutrient function in the body, nutrient chemistry and energy metabolism. Role of nutrients in health and disease.

- **Credit Hours:** 3
- **Max credits per semester:** 3
- **Max credits per degree:** 3
- **Format:** LEC
- **Prerequisite for:** NUTR 251; NUTR 302; NUTR 344; NUTR 355; NUTR 356; NUTR 400
NUTR 251 Nutrition Through the Life Cycle  
Prerequisites: NUTR 250 or parallel. 
Description: Influence of normal physiological stress on nutritional requirements throughout the life cycle: pregnancy, lactation, growth, and aging. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC 
Prerequisite for: NUTR 356

NUTR 252 Nutrient and Fitness Assessment  
Prerequisites: NUTR 100, NUTR majors only 
Description: Introduction to and practical application of tools frequently used to estimate fitness levels and dietary intake; association among physical activity, nutrition, and health; health screening and risk classification; principles of assessment and various assessment strategies. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC

NUTR 253 Cultural Aspects of Food and Nutrition  
Description: The influences of culture on food and nutrition practices. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC

NUTR 255 Special Topics in Health  
Prerequisites: NUTR 201. 
Description: Series of minicourses devoted to specific content areas of health. 
Credit Hours: 2 
Max credits per semester: 2 
Max credits per degree: 2 
Format: LEC

NUTR 256 Addressing Health Disparities through Health Literacy  
Prerequisites: NUTR 100 
Description: Understanding of health disparities existing at national and local levels through a social justice lens and the role of health literate communication in reducing health disparities, as well as its limitations. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC

NUTR 258 Special Topics in Nutritional Science and Dietetics  
Prerequisites: As announced by department. 
Description: Topics vary. 
Credit Hours: 1-6 
Min credits per semester: 1 
Max credits per semester: 6 
Max credits per degree: 6 
Format: LEC

NUTR 298 Independent Study  
Prerequisites: 6 hrs in major department or closely related areas and permission. 
Notes: Work supervised and evaluated by departmental faculty members. 
Description: Individual projects in research, literature review, or creative production. 
Credit Hours: 1-5 
Min credits per semester: 1 
Max credits per semester: 5 
Max credits per degree: 5 
Format: IND

NUTR 302 Health Information: Science, Media, and the Consumer  
Prerequisites: NUTR 250 and NUTR major 
Description: Critical evaluation, interpretation and communication of consumer health messages. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC 
Offered: FALL/SPR 
ACE: ACE 2 Communication Competence

NUTR 330 Environmental Health  
Crosslisted with: NRES 330 
Prerequisites: Class standing of sophomore or above with at least one semester of chemistry and biology. 
Description: Provides a comprehensive understanding of how environmental exposures to physical, chemical and biological hazards influence human health. Offers basic knowledge in the core concepts of toxicology, exposure and risk, vulnerable populations and the interrelationship between human, animal and environmental health. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC 
Offered: FALL/SPR 
ACE: ACE 8 Civic/Ethics/Stewardship

NUTR 343 Meat CulinologyTMIII: Foodservice Applications  
Crosslisted with: ASCI 343 
Prerequisites: ASCI/NUTR 210 or ASCI/NUTR 213 or ASCI/NUTR 310. 
Description: Cookery principles and methods role in maintaining meat yield and quality characteristics. Cookery techniques to maximize guest satisfaction and insure foodservice and/or restaurant financial integrity. Flavor enhancement and cookery technology application in center of the plate concept development. 
Credit Hours: 3 
Max credits per semester: 3 
Max credits per degree: 3 
Format: LEC

NUTR 344 Nutrition and Food for Optimal Health  
Prerequisites: NUTR 250; NUTR majors only; or permission 
Description: Integration of current dietary guidelines, nutrient assessment methodologies, scientific principles of food preparation, financial accountability, concepts of healthy menu planning, and preparation techniques in promotion of healthy living. 
Credit Hours: 4 
Max credits per semester: 4 
Max credits per degree: 4 
Format: LEC 
Prerequisite for: NUTR 453
NUTR 351 School Health Issues
Description: Prevalence and etiology of health behaviors among children and teens. Organization, development, and legal aspects of school health programming.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 352 Social Marketing in Health Communication
Prerequisites: Junior standing. NUTR majors only.
Description: Application of the social marketing framework to analyze public health problems and design program solutions.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 355 Introduction to Sports Nutrition
Prerequisites: BIOS 213; NUTR 250
Description: Understanding of fundamental principles of sports nutrition. Tools and knowledge to evaluate scientific literature and to develop evidence-based diet and supplementation strategies aimed at maximizing athletic performance.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 356 Nutrition Education in the Community
Prerequisites: NUTR 100 and 250; NUTR 251 or parallel.
Description: Overview of community nutrition. Assessment of community needs and services; policy formation; techniques for developing and delivering theory-based nutrition education.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 370 Food Production Management
Description: Application of food production and purchasing principles in foodservice management.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 371 Applied Food Production Laboratory
Prerequisites: NUTR 244 and 245.
Description: Application of theoretical knowledge and quality assessment is provided in university or community laboratory setting.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB

NUTR 372 Food Safety and Sanitation
Crosslisted with: FDST 372
Prerequisites: One course in chemistry and one course in biological sciences.
Description: Various factors that result in food illness: food allergy, natural toxins, parasites, microbial and viral food borne infections and food borne intoxications. Students will assess hazards, identify critical control points and establish monitoring and system verification procedures.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 384 Biomechanics of Human Movement
Prerequisites: Junior standing; BIOS 214
Description: Anatomical and mechanical principles as related to human movement.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 399 Independent Study
Prerequisites: Permission.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 6
Format: IND

NUTR 400 Planning and Implementation of Health Promotion Programs
Prerequisites: NUTR 250 and junior standing
Description: Theory-based process of developing health promotion/education programs. Principles of planning, implementing and evaluating health education interventions will be taught using evidence-based research.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: FALL/SPR
Prerequisite for: NUTR 404; NUTR 487

NUTR 401 Health Behavior
Prerequisites: Junior standing.
Description: Social, psychological, and cultural factors that influence the adoption, maintenance, and modification of health behaviors in communities.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 404 Evaluation and Research Related to Health Promotion
Prerequisites: NUTR 400
Description: Introduction to research, study designs, and data collection methods in health and behavior-change related studies, including exercise, nutrition, and health education. Emphasis on understanding research literature and development of research/grant proposals.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 406
NUTR 406 Management and Administration of Health Promotion Programs

Prerequisites: NUTR 404

Description: Overview of systems approach to the management of resources needed to plan, implement, and evaluate a health education/promotion program including financial, human, curricula, and physical resources. Qualities of effective leadership will be explored and evaluated.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 408

NUTR 407 Principles of Epidemiology for Nutrition and Public Health

Crosslisted with: NUTR 807

Prerequisites: NUTR 250 and 3 cr hrs Statistics

Description: Application of basic concepts of epidemiology to nutrition and public health to include epidemiological research design, estimating outcome measures and determining cause and effect and effectiveness of interventions to prevent and treat disease.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 408 Community Health Advocacy

Prerequisites: NUTR 406

Description: Health policy and law in the United States. Development of health advocacy skills through engagement with local community health organizations and decision-makers.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 429A Food Security: A Global Perspective


Prerequisites: Junior standing

Description: Overview of the technical and sociocultural dimensions of global food insecurity.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 430 Nutritional Anthropology

Crosslisted with: ANTH 430, ANTH 830, NUTR 830

Prerequisites: ANTH 242 or equivalent.

Description: Anthropological approaches to the study of nutrition. Background to nutrition science; bio-cultural aspects of obesity, fertility, lactose intolerance, and infant feeding practices; biological differences in nutritional requirements, fertility, and mortality; interpretation of nutritional deficiencies in skeletal remains; reconstructing prehistoric diets from archaeological evidence; and evaluation of relationships between dietary patterns and dental remains in fossil record.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Groups: Biological Anthropology

NUTR 441 Functional Properties of Food

Crosslisted with: FDST 441, FDST 841, NUTR 841

Prerequisites: NUTR 245 and BIOC 401; or FDST 448.

Description: Relationship of structure and functionality of ingredients in food systems.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 449

NUTR 445 Experimental Foods

Crosslisted with: FDST 445, FDST 845, NUTR 845

Prerequisites: NUTR 244 and 245; BIOC 401.

Description: Introduction to food research. Application of research techniques to selected problems.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 449

NUTR 449 Culinology Research Experience

Prerequisites: Senior standing; NUTR 441 or 445 or FDST 448; Culinology major.

Description: Supervised individual professional Culinology research experience in product development.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: FLD

NUTR 450 Medical Nutrition Therapy I

Prerequisites: BIOC 401 and 401L, or BIOC/BIOS/CHEM 431; BIOS 213 or ASCI 240.

Description: Nutrition assessment, nutrition support, documentation of nutrition services and medical terminology.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 452

NUTR 452 Medical Nutrition Therapy II

Prerequisites: NUTR 450

Description: Nutrition in the disease state. Physiological and biochemical basis of medical nutrition therapy.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 452

ACE: ACE 10 Integrated Product

NUTR 452L Medical Nutrition Therapy II Laboratory

Prerequisites: For Dietetics option: NUTR 452 or parallel.

Description: Application of nutrition care process.

Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB
ACE: ACE 10 Integrated Product
NUTR 453 Nutrition and Fitness Communication Strategies
Prerequisites: NUTR 344
Description: Application of behavior change and counseling theories to individual clients. Data assessment and interpretation, and developing goals and/or outcomes to facilitate health behavior changes.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 488

NUTR 454 Peer Nutrition Education
Prerequisites: Junior standing; COMM 109; NUTR 100.
Description: Practical experience in developing skills in nutrition for health promotion and nutrition education.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

NUTR 455 Advanced Nutrition
Prerequisites: BIOC 401 and 401L, or BIOC/BIOS/CHEM 431; BIOS 213 or ASCI 240, or parallel.
Description: Biochemical and physiological aspects of human nutrition. Nutrient transport, storage and utilization under various metabolic states and relationships to the development of chronic diseases.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 456 Clinical Exercise Physiology
Crosslisted with: NUTR 856
Prerequisites: NUTR 486/886 or equivalent.
Description: Cardiovascular, pulmonary, metabolic, pharmacologic, endocrinologic, renal, neurologic, inflammatory, and orthopedic aspects of clinical exercise physiology as they relate to exercise testing and programming.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 492

ACE: ACE 10 Integrated Product

NUTR 457 Classroom and Outreach Experiences in Food and Nutrition
Description: Supervised classroom or outreach experiences in educational or community settings.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: FLD

NUTR 470 Cost Control for Foodservice
Crosslisted with: NUTR 870
Prerequisites: NUTR 370.
Description: Principles of cost control for foodservice. Integration of cost control and foodservice/restaurant management principles which influence financial integrity. Utilization of the computer as a tool to enhance decision making capabilities.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

NUTR 471 Vines, Wines and You
Crosslisted with: HORT 471, HORT 871, NUTR 871, HRTM 471, HRTM 871
Prerequisites: 6 hrs science or equivalent experience; 21 years of age or older
Notes: Proof of age is required.
Description: Origin, botany, historical and cultural significance of the grapevine and related species. Principles and practices of vineyard establishment, management and processing of grape products, importance and/or scope of grape and wine industry; global and local significance. Culinary applications, health, environmental and safety-related issues, business and industry relations and experience.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 473 Organization and Administration of Foodservice
Crosslisted with: NUTR 873
Prerequisites: NUTR 370.
Description: Organizational, administrative, and human relations concepts to foodservice. Utilization of computer applications in administration of a foodservice facility.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 973

NUTR 480 Introduction to Functional Electrocardiography
Crosslisted with: NUTR 880
Prerequisites: NUTR 486; NUTR/BIOS 484.
Description: Theory and application of electrocardiography in graded exercise testing.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 484 Physiology of Exercise
Crosslisted with: NUTR 884
Prerequisites: BIOS 213 or equivalent.
Description: Effects of physical activity on the circulatory, respiratory, and other physiological processes.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: NUTR 486, NUTR 886; NUTR 858
NUTR 486 Exercise Testing and Exercise Programming in Adult Fitness and Cardiac Rehabilitation
Crosslisted with: NUTR 886
Prerequisites: NUTR/BIOS 484/884; EDPS 459/859 or STAT 218
Description: In-depth analysis and development of the techniques and knowledge prerequisite for certification in adult fitness and cardiac rehabilitation as prescribed by the American College of Sports Medicine.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC
Prerequisite for: NUTR 456, NUTR 856; NUTR 488

NUTR 487 Community Health and Wellness Practicum
Prerequisites: NUTR 400. Community Health and Wellness majors only.
Notes: Background check will be required.
Description: Application of health education concepts and skills in a practical setting while serving as a health education resource person.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: FLD

NUTR 488 Practicum in Exercise and Health Behavior Planning
Prerequisites: NUTR 453 and 486/886
Description: Practical experience in exercise testing and analysis and planning of health and fitness programs for individuals.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
ACE: ACE 10 Integrated Product

NUTR 490 Professional Preparation for Careers in Dietetics
Prerequisites: Senior standing.
Description: Professional requirements in order to become a registered dietitian. Types of supervised practice experiences available and assistance in application process. Career options, professional organizations, and current issues in the dietician profession.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: FLD

NUTR 492 Nutrition Problems
Prerequisites: NUTR 455 or equivalent, and permission.
Description: Individual problems may be selected from diet therapy, animal feeding, metabolism studies, or surveys.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 6
Format: IND

NUTR 493 Workshop Seminar
Credit Hours: 1-12
Min credits per semester: 1
Max credits per semester: 12
Max credits per degree: 12
Format: LEC

NUTR 494 Essentials of Strength Training & Conditioning
Crosslisted with: NUTR 894
Prerequisites: Junior Standing
Description: Overview of the scientific principles and practical applications of strength and conditioning that integrate physiological responses, adaptations, testing, exercise techniques, program design, and periodization for athletic performance.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

NUTR 496 Independent Study
Crosslisted with: NUTR 896
Prerequisites: 12 hrs in major related areas; permission.
Notes: Supervised and evaluated by departmental faculty members.
Description: Individual projects in research, literature review, or creative production.
Credit Hours: 1-5
Min credits per semester: 1
Max credits per semester: 5
Max credits per degree: 5
Format: IND

NUTR 497Z Student Teaching Multicultural
Crosslisted with: TEAC 497Z, SPED 497Z
Description: Supervised teaching experiences in schools. Accompanying seminar focuses on: teacher certification, teacher and student rights and responsibilities, proper conduct of teachers, selected legal aspects of education, methods of communicating with parents and community members, and current issues which impact education.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: FLD

NUTR 498 Research Experiences
Prerequisites: Senior standing and permission.
Description: Participation in an ongoing research project. Select from foods, human nutrition education, small animal, or survey research areas.
Credit Hours: 1-5
Min credits per semester: 1
Max credits per semester: 5
Max credits per degree: 5
Format: IND

NUTR 498B Global Research Experiences in Nutrition and Health
Crosslisted with: GLST 498B
Notes: Self-paced course. Can result in publication. Suitable for domestic and international research experiences.
Description: Structuring a global research experience while strengthening research and science communication skills and enhancing global competency and awareness.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 6
Format: RSC
NUTR 499H Honors Thesis

Prerequisites: Good standing in the University Honors Program or by invitation.

Description: Conduct a scholarly research project and write a University Honors Program or undergraduate thesis.

Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC