

# **NUTRITION (NUTR)**

undefined

## **NUTR Courses**

#### NUTR 1101 Orientation to the Nutrition Major (1 unit)

Term Typically Offered: F

CR/NC

Understanding the depth and breadth of the Nutrition program and academic and career planning. Students are required to complete this course within their first year in the major. Credit/No Credit grading only. 1 lecture. Formerly FSN 101.

#### NUTR 3310 Maternal and Child Nutrition (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing; and FSN 202 or FSN 2202.

Nutritional needs and related nutritional challenges of women and children, including fertility, pregnancy and lactation; physical, nutritional, social growth and development from infancy through adolescence. Current nutrition issues in maternal and child nutrition. Course may be offered in classroom-based, online, or hybrid format. 3 lectures. Formerly FSN 310.

# NUTR 3315 Nutrition in Aging (2 units)

Term Typically Offered: F, SP

Prerequisite: Sophomore standing; and FSN 202 or FSN 2202.

Nutrition issues in the middle and later years. Changes in organ systems, nutrient needs, functional status, and food preferences as adults age. Nutrition and chronic disease. Nutritional assessment and screening. Nutrition-related healthcare and preventative interventions for longevity and healthspan. Course may be offered in classroom-based, online, or hybrid format. 2 lectures. Crosslisted as HNRS/NUTR 3315. Formerly FSN 315.

#### NUTR 3321 Experimental Foods (3 units)

Term Typically Offered: F

Prerequisite: Sophomore standing; and FSN 202 or FSN 2202. Corequisite: FSN 121 or FSN 1121.

Overview of the science and processes used to produce foods consumed daily. An experimental approach to solve challenges in choosing, purchasing, and preparing foods for diverse populations emphasizing food's nutritional, aesthetic, economic and cultural aspects. 2 lectures, 1 laboratory. Formerly FSN 321.

#### NUTR 3331 Macronutrient Metabolism (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing; BIO 161 or BIO 1151; FSN 202 or FSN 2202; and one of the following: CHEM 314, CHEM 369, CHEM 3350, or CHEM 3352.

Metabolism of carbohydrates, fats, and proteins as it applies to human nutrition. Integration and regulation of metabolic pathways. 3 lectures. Formerly FSN 331.

#### NUTR 3332 Micronutrient Metabolism (3 units)

Term Typically Offered: F, SP

Prerequisite: FSN 331 or NUTR 3331.

Biochemical, molecular, and physiological functions of vitamins and minerals and their interaction with other nutrients. 3 lectures. Formerly FSN 332.

## NUTR 3333 Nutrient Metabolism Lab (1 unit)

Term Typically Offered: F, SP

Prerequisite: FSN 331 or NUTR 3331. Corequisite: FSN 332 or NUTR 3332.

Application of biochemical, absorptiometry, calorimetry, and other methods to assess health indicators and nutritional status. 1 laboratory. Formerly FSN 333.



#### NUTR 4405 Advanced Sport Nutrition & Exercise Metabolism (3 units)

Term Typically Offered: TBD

Prerequisite: FSN 331 or NUTR 3331.

Advanced concepts in sports nutrition and interaction of exercise and nutrition, including classic and recent findings related to mechanisms of nutrient effects on exercise performance, metabolism, muscle physiology, body composition, and health. 3 lectures. Formerly FSN 405.

#### NUTR 4415 Nutrition Counseling & Education (3 units)

Term Typically Offered: F, SP

Prerequisite: FSN 331 or NUTR 3331. Corequisite: FSN 332 or NUTR 3332; and FSN 333 or NUTR 3333.

Appropriate behavior and learning theories in nutrition education and counseling in communications across diverse individuals. Counseling techniques, materials, and theories to educate individuals. Includes community-based learning projects. 3 lectures. Formerly FSN 415.

# **NUTR 4416 Community Nutrition (3 units)**

Term Typically Offered: F, SP

Prerequisite: Senior standing; FSN 310 or NUTR 3310; FSN 315 or NUTR 3315; and FSN 331 or NUTR 3331. Recommended: FSN 415 or NUTR 4415.

Federal, state, and local nutrition assessment activities, group education and communication, and program services. Public health, health promotion, and disease prevention. Development of skills in group education, assessing community nutrition problems, and planning community interventions. 3 lectures. Formerly FSN 416.

#### NUTR 4425 Professional Practice in Nutrition and Dietetics (1 unit)

Term Typically Offered: SP

CR/NC

Prerequisite: Senior standing. Recommended: FSN 332 or NUTR 3332.

Exploration of students' transition to professional practice, graduate schools, career opportunities, and factors to be considered in career decisions. Strategic planning, critical thinking, and written and oral communication skills in preparation for nutrition and dietetics professions. Credit/No Credit grading only. 1 lecture. Formerly FSN 463.

# NUTR 4426 Nutrition and Foodservice Systems Management (3 units)

Term Typically Offered: F

Prerequisite: FSN 344 or FSN 3346.

Principles of successful organization and management for clinical, community, and foodservice systems. Administrative responsibilities of nutrition and foodservice directors. Management theories and practice. Labor relations. Discipline and performance appraisal. 2 lectures, 1 activity. Formerly FSN 426.

# NUTR 4431 Medical Nutrition Therapy I (4 units)

Term Typically Offered: F, SP

Prerequisite: BIO 231 or BIO 2231; FSN 310 or NUTR 3310; and FSN 315 or NUTR 3315. Corequisite: BIO 232 or BIO 2232; FSN 332 or NUTR 3332; and FSN 333 or NUTR 3333.

Nutrition care processes for physiological disorders that may alter nutritional requirements and require dietary modifications for Diabetes Mellitus, enteral and parenteral nutrition, anemias, acid-base conditions, cardiovascular disease, and obesity. 3 lectures, 1 laboratory. Formerly FSN 431.

# NUTR 4432 Medical Nutrition Therapy II (4 units)

Term Typically Offered: F, SP

Prerequisite: FSN 431 or NUTR 4431.

Application of the nutrition care process to physiological disorders which may alter nutritional requirements for. Upper and lower GI diseases, liver, gallbladder, and exocrine pancreas diseases, renal diseases, respiratory diseases, metabolic stress disorders, cancer, and metabolic disorders. 3 lectures, 1 laboratory. Formerly FSN 432.



#### NUTR 4460 Senior Project - Scientific and Technical Writing (2 units)

Term Typically Offered: F, SP

Prerequisite: Senior standing; FSN 310 or NUTR 3310; FSN 315 or NUTR 3315; FSN 333 or NUTR 3333; and STAT 218 or STAT 1110.

Directed culminating experience for Nutrition students choosing the Senior Project Scientific & Technical Writing option. Development of literature review. 2 lectures.

#### NUTR 4461 Senior Project - Research (2 units)

Term Typically Offered: F, SP

Prerequisite: Senior standing; FSN 310 or NUTR 3310; FSN 315 or NUTR 3315; FSN 333 or NUTR 3333; and consent of instructor.

Directed culminating experience for Nutrition students choosing the senior project research option. Selection of scientific research topic in major area. Development of literature review, research questions, research design, data collection, and analysis. Required for Blended MS in Nutrition. Formerly FSN 461.

## NUTR 4462 Senior Project - Internship (2 units)

Term Typically Offered: F, SP, SU

Prerequisite: Senior standing; two of the following: FSN 310, NUTR 3310, FSN 315, NUTR 3315, FSN 333, or NUTR 3333; and consent of instructor.

Directed culminating experience for Nutrition majors choosing the senior project internship option. Students must complete a project as a component of their internship in an approved organization in California.

#### NUTR 5516 Nutrition Epidemiology (2 units)

Term Typically Offered: TBD

Prerequisite: Graduate standing, FSN 416, or NUTR 4416.

Concepts and issues in nutrition epidemiology. Epidemiologic methods, study design, and population health from nutrition perspective. Analytical considerations related to nutrition and population health. Nutrition-related issues at national and global levels. 2 lectures. Formerly FSN 516.

# NUTR 5528 Biochemical and Molecular Aspects of Human Macronutrient Metabolism (3 units)

Term Typically Offered: SP

Prerequisite: Graduate standing, FSN 331, or NUTR 3331.

Advanced aspects of the human metabolism of carbohydrates, lipids and proteins. Classic and recent findings related to mechanisms of nutrient-regulated gene expression. Metabolism related to specific diseases. 3 lectures. Formerly FSN 528.

#### NUTR 5529 Metabolic and Molecular Aspects of Vitamins and Minerals (3 units)

Term Typically Offered: SP

Prerequisite: Graduate standing, FSN 332, or NUTR 3332.

Advanced aspects of vitamins and minerals. Metabolic details and functional roles. Mechanisms of vitamin- and mineral-regulated gene expression. Aspects of vitamin and mineral status. 3 lectures. Formerly FSN 529.

# NUTR 5531 Lipid Metabolism and Nutrition (3 units)

Term Typically Offered: TBD

Prerequisite: Graduate standing. Recommended: FSN 331 or NUTR 3331.

Digestion, absorption and metabolism of lipids with emphasis on lipoprotein metabolism, regulation of lipid metabolism, effects of gene expression, essential fatty acid requirements and functions. 3 lectures. Formerly FSN 531.

#### NUTR 5550 Nutrition & Dietetics Leadership & Professionalism Seminar (1-3 units)

Term Typically Offered: F, SP

Prerequisite: Admission into Cal Poly's dietetic internship programs.

Seminar focused on professionalism and leadership in dietetics and current issues in medical nutrition therapy, food service management, and management and community nutrition. Field trip may be required. Repeatable up to 6 units. 1 to 3 seminars. Formerly FSN 550.



#### NUTR 5551 Medical Nutrition Therapy Practicum I (1-4 units)

Term Typically Offered: F, SP

Prerequisite: Admission into Cal Poly's dietetic internship programs.

Supervised practice providing medical nutrition therapy for patients with lower-acuity care needs/low-moderate nutrition risk in outpatient and inpatient medical facilities. Repeatable up to 4 units. Formerly FSN 551.

# NUTR 5552 Medical Nutrition Therapy Practicum II (1-4 units)

Term Typically Offered: F, SP, SU

Prerequisite: Admission into Cal Poly's dietetic internship programs.

Supervised practice providing medical nutrition therapy for patients with mid-level acute care needs/moderate nutrition risk. Repeatable up to 4 units. Formerly FSN 552.

## NUTR 5553 Medical Nutrition Therapy Practicum III (1-4 units)

Term Typically Offered: F, SP, SU

Prerequisite: Admission into Cal Poly's dietetic internship programs.

Supervised practice providing medical nutrition therapy for patients with high-level acute care needs/high nutrition risk. Repeatable up to 4 units. Formerly FSN 553.

#### NUTR 5554 Community Nutrition Practicum (1-4 units)

Term Typically Offered: F, SP, SU

Prerequisite: Admission into Cal Poly's dietetic internship programs.

Supervised practice in community nutrition settings. Repeatable up to 4 units. Formerly FSN 554.

### NUTR 5556 Food & Nutrition Service Management Practicum (1-4 units)

Term Typically Offered: F, SP, SU

Prerequisite: Admission into Cal Poly's dietetic internship programs.

Supervised practice in food and nutrition service and management facilities, such as hospitals and school districts. Repeatable up to 4 units. Formerly FSN 556.

## **NUTR 5582 Current Nutrition Research (1 unit)**

Term Typically Offered: F, SP Prerequisite: Graduate standing.

Directed group study and presentation of selected nutrition research topics for graduate and advanced undergraduate students. Students will select, read, critically analyze and present nutrition research within designated themes. Repeatable up to 3 units. 1 seminar. Formerly FSN 582.

#### NUTR 5598 Nutrition & Dietetics Capstone Project (1-3 units)

Term Typically Offered: F, SP

Prerequisite: Admission into Cal Poly's dietetic internship programs; and STAT 511 or STAT 5110.

Capstone project for students to apply and synthesize their knowledge and experiences to address current issues in nutrition and dietetics practice. Repeatable up to 6 units. Formerly FSN 598.