



BACHELOR OF SCIENCE IN NUTRITION AND DIETETICS (COORDINATED PROGRAM)

COURSE DESCRIPTION

NUTR 201 Introductory Nutrition

3 Credits

Fundamentals of nutrition, such as the study of foods nutrients, digestion, absorption, metabolism, and excretion. Problems associated with deficiency and excess are discussed. Students will have the opportunity to evaluate their food intake in terms of caloric content, nutrients and compare it with the established recommendations for individual needs.

Pre-requisites: BIOL 303

NUTR 202 Food Science

3 Credits

Evaluation of food's chemical, physical, functional and nutritional changes. Evaluation of changes which take place during selection, preparation, process and storage of food with attention given to the quality and retention of nutrients. The course includes an experimental laboratory with techniques to examine the chemical and physical properties in food. The necessary characteristics of food preparation and conservation of nutrients are determined, including adequate food appearance.

Pre-requisites: NUTR 201 & BIOL 321

NUTR 204 Vegetarian Nutrition

3 Credits

Theory and basic concepts of Vegetarian Nutrition. The need for essential nutrients and the health consequences of a vegetarian diets in humans. Emphasis is given to trends in the use of vegetarian diets, fallacies, and risk factors. Composition, planning and selection of vegetarian nutrition and how to satisfy the body needs at different stages of life.

Pre-requisites: None, an Introductory Nutrition Course is Strongly Recommended

NUTR 205 Nutrition in sports and Exercise

2 Credits

Basic concepts on the interaction of nutrition, sports and exercise. Emphasis is given to the athlete, his/her physical condition, nutritional needs and other specific needs.

Pre-requisites: None, Introductory Nutrition and a Human Biology Courses are Strongly Recommended

NUTR 206 Nutrition in Alternative-Complementary Medicine

2 Credits

Theory, culture and application of alternative-complementary medicine in nutrition. Experiences are directed towards obtaining knowledge about the use of herbs. A scientific base is provided utilizing and analyzing available literature and identifying the most commonly used herbs with the generic and common names.

Pre-requisites: None, an Introductory Nutrition Course is Strongly Recommended

NUTR 305 Socio-Cultural Aspects in Nutrition**2 Credits**

The course explores and analyzes social-cultural factors associated with the decision-making process related to food intake and its effects on individual nutrition and health. The students will have the opportunity to evaluate controversies related to food and its effects in nutrition. The purpose is the formation of professionals who can participate in public policy relate to foods and nutrition in Puerto Rico.

Pre-requisites: NUTR 425

NUTR 310 Food Service System Management**3 Credits**

Principles of marketing, financial management, and human resources applied to foodservice facilities. Discussion of hypothetic situations for analysis and recommendations. Foodservices laws and regulations at national and international levels are discussed. Emphasis is given to leadership skills and the necessary skills to influence change and quality improvement.

Pre-requisites: NUTR 201

NUTR 320 Food Service Facility Design and Equipment**3 Credits**

This course studies the importance of an appropriate planning in foodservices facilities settings. Discussion of the elements in the design, maintenance and operations of institutional equipment and the safety and sanitation to ensure quality of services. The students will have the opportunity to visit foodservice facilities and view the institutional equipment used.

Pre-requisites: NUTR 310

NUTR 321 Institutional Menu Planning**3 Credits**

Theory, techniques and practice in the design, preparation, analysis and servicing of an institutional menu. Experiences are provided on the basic administration of food servicing, which can provide nutritional meals adequate to the served population. These experiences are focused on the following: knowledge and skills of time and money management, costs per recipe, recipe standardization, portions control, food preparation and meal management. Recent studies, trends in the food industry, consumer patterns and populations general patterns are discussed. Computer programs are included as part of the experiences on design and analysis of menu.

Pre-requisites: NUTR 460

NUTR 403 Advanced Nutrition and Metabolism**3 Credits**

Evaluation of the biochemical and physiological aspects that interact in the utilization of nutriment by the human body. Health problems associated with nutritional excess on deficiencies such as obesity, anemia, osteoporosis and others nutritional disorders are examined.

Pre-requisites: NUTR 201, BIOL 304 & BIOL 350

NUTR 405 Nutrition Throughout the Life Cycle**3 Credits**

This course studies the physiologic and developmental changes throughout the stages of the life cycle of humans and the nutritional needs related to those stages of change. Also examines psychosocial and environmental conditions that impact on nutrition status in each stage of life.

Pre-requisites: NUTR 420

NUTR 420 Nutritional Assessment**2 Credits**

This course includes in depth study of nutritional analysis, methods, including dietary intake, anthropometric, biochemical and clinical measures. Students have the opportunity to practice nutritional analysis methods at individual and family levels. Students are also exposed to nutritional evaluation studies.

Pre-requisites: NUTR 201 & BIOL 304

NUTR 425 Community Nutrition**3 Credits**

The course analyzes the predominant health problems in the Puerto Rico community and other cultures such as USA. The students will become familiarized with main epidemiologic studies and government initiatives in response to the current nutritional situation and related services at public and private levels. Special attention will be given to the development and impact of government public policy in the field of nutrition. Students have at least one community field experience, includes a special project.

Pre-requisites: NUTR 420

NUTR 435 Educational Strategies in Nutrition**2 Credits**

Social aspects that interact with the acquisition of alimentary patterns, analyzing the human behavior theories most utilized in nutrition field and its application for nutritional counseling. Also, explore different educational strategies in nutrition, including communication techniques through mass media, group teaching and individual teaching. The student will plan, practice and apply this knowledge during nutrition educational activities.

Pre-requisites: NUTR 405

NUTR 436 Food Service Supervised Practice Experience**N/A Credits**

The application of theory functions and principles of management through supervised practice in healthcare facilities. Emphasis on personnel and financial management, problem analysis, and quality assurance.

Pre-requisites: NUTR 201, NUTR 202, NUTR 310, NUTR 320, NUTR 321 and a Permission of the CPD Director

NUTR 440 Medical Nutrition Therapy I**3 Credits**

This course covers the use of nutrition as a component of treating disease. Relevant biochemistry and physiology are integrated into a medical nutrition therapy plan. The course is organized by body organ system and disease. Topics covered from a medical nutritional perspective include acid base and fluid and electrolyte balance; renal, cardiovascular, gastrointestinal hepatic, pancreatic diseases. Special nutrition therapies are discussed. The course also introduces students to: nutritional genomics, food-drug interactions, enteral and parenteral support, and medical terminology. Material is illustrated by case studies.

Pre-requisites: NUTR 403 & NUTR 405

NUTR 441 Medical Nutrition Therapy II**3 Credits**

This course continues covering the use of nutrition as a component of treating disease. Relevant biochemistry and physiology are integrated into a medical nutrition therapy plan. The course is organized by body organ system and disease. Topics covered from a medical nutritional perspective

include acid base and fluid and electrolyte balance; renal, cardiovascular, gastrointestinal hepatic, pancreatic disease. Special nutrition therapies are discussed. Material is illustrated by case studies.

Pre-requisites: NUTR 440

NUTR 442 Medical Nutrition Therapy Supervised Practice Experience

N/A Credits

Application of the principles of clinical nutrition in specific disease conditions during a supervised practice in health care facilities.

Pre-requisites: NUTR 201, NUTR 403, NUTR 405, NUTR 420, NUTR 435, NUTR 440, NUTR 441, NUTR 451 and a Permission of the CPD Director

NUTR 450 Community Supervised Practice Experience

This course provides experiences that include nutrition assessment, counseling and delivery of nutrition services to the community.

Pre-requisites: NUTR 201, NUTR 305, NUTR 405, NUTR 420, NUTR 425, NUTR 435, NUTR 451 and a Permission of the CPD Director

NUTR 451 Nutritional Research Methods

2 Credits

This course presents the principal methods of human nutrition research with focus on the role of the nutritionist as part of a research team. Qualitative and quantitative research, research ethics, quality control, selection of dietary assessment methodology and sources of funding are discussed. A research study is conducted as part of this course and results are share with other students and faculty members. The students will have the opportunity to analyze research articles from well-recognized journal of nutrition topics.

Pre-requisites: NUTR 420

NUTR 455 Integration Seminar and Fundamental Aspects in the Nutrition-Dietetics Profession

3 Credits

The requirements to practice the profession of dietetics in Puerto Rico. Review and practice of the basic components included in the examination test required by the Department of Health and Commission on Dietetic Registration to practice the profession of Nutritionist and Dietitian. Introduction to careers in nutrition, dietetics and foodservice administration, job responsibilities; interests, abilities, skills, education and experience required for the job; and job market for similar positions.

Pre-requisites: CP Exclusive, All NUTR Courses and Permission of CPD Director

NUTR 460 Purchasing and Preparation of Quantity Foodservice

3 Credits

Manager/supervisor responsibilities with the food purchasing and preparation in large quantity foodservice systems. The course includes the planning, purchasing, preparation and service of meals nutritionally balanced, safe meals, and in accordance with established budget. Also, includes time to practice the concepts learned in class.

Pre-requisites: NUTR 202 & NUTR 310