School	
Major	Bachelor of Science in Nutrition and Dietetics

Major Requirements			
Code	**Title**	**Credits**	**Description**
NUTR490	Nutrition Seminar	1	This course allows the student to learn how to give a scientific talk to a knowledgeable audience. The student must present a self-selected recent nutrition/food science topic and prepare a scientific presentation and report. The audience will participate actively in the presentation by asking questions and pointing out strengths and limitations of the topic at hand. This course also allows the students to learn about the most recent advances and topics in the nutrition and food science field.
NUTR475	Inborn Errors of Metabolism	3	This course introduces the student to the complex world of identifying and managing inborn errors of metabolism through dietary therapy by drawing on a combination of different sciences, including genetics, biochemistry, pathophysiology, and nutrition.
NUTR450	Community Nutrition	3	Understand the role of community nutritionist in the promotion of the public's health, disease prevention, micronutrient deficiency prevention, Nutrition education, as well understanding of national and international nutrition policies and objectives
NUTR400	Nutrition Through Life Span	3	The course will provide an insight to the nutritional needs during the different stages of life from infancy till elderly including the different needs for fetal development pregnancy and lactation.
NUTR315	Human Nutrition and Metabolism	4	The course briefly covers new dietary goals and recommendations and DRI for each nutrient. It provides an insight to the essential nutrients, their role in the human body, digestion, absorption and metabolism. The course also touches nutrient supplementation and interactions. It also discusses alcohol and vegetarian diets.
FDSC460	Food Service Management	3	This course introduces the student to the management of different types of foodservice organizations. Students will be studying the managerial (profit, location) and the scientific issues (food safety, hygiene, menu planning) related to foodservice organization. The student will also be introduced to modifications of the normal diet to meet special nutrition needs and menu planning. This course gives a deep insight on different types of foodservice organization and gives a detailed description of the foodservice systems.
NUTR250	Basic Nutrition	3	This course will introduce the students to the food nutrients, their food sources, digestion and utilization by the body. In addition to the introduction to the characteristics of a nutritious diet in terms of energy, macro and micro nutrients.
NUTR440	Obesity & Regulation of Body Weight	3	This course teaches the student about managing obesity and all its complications. It also introduces the student to obesity throughout the life span and deals with strategies to treat and prevent it.
NUTR485	Selected Topics in Clinical Nutrition	3	This course merges the pathophysiology of diseases with nutritional sciences. The student will relate diseases to nutrition, and therefore will know the appropriate nutritional care provided for specific cases. This course aims to teach the student how to manage different diseases through nutrition therapy
NUTR411	Therapeutic Nutrition	4	This course merges the pathophysiology of diseases with nutritional sciences. The student will relate diseases to nutrition, and therefore will know the appropriate nutritional care provided for specific cases. This course aims to teach the student how to manage different diseases through nutrition therapy.
NUTR351	Nutritional Assessment and Counseling	4	The course will allow students to comprehend and know how to apply the four domains (ABCD) in nutritional assessment which are: anthropometry, biochemical, clinical, and dietary assessment.
Core Requirements			

Code	Title	Credits	Description
FDSC425L	Food Processing Lab	1	This course provides the students with practical experience in some common methods of food preservation and processing.
FDSC420	Food Processing	3	This course is designed to cover different categories in food processing. It is an introductory course about dairy, baking, beverages, oil, and meat sectors in the food industry. This course is also to familiarize the students with the food products found in the market, their sources, how they are processed and how does that affect its quality (safety and composition).
MATH245	Statistics for Health Sciences	3	“Introduction to Epidemiology & Biostatistics” is an integrated course that introduces students to the basic principles of Epidemiology and Biostatistics. The course covers the basic principles of research design and the statistical methods and tools used in quantitative data analysis in the domain of health sciences. The first part of the course focuses on epidemiology and covers the design of epidemiological studies, epidemiological measures of the frequency of vital events (health, disease, disability and death), measures of association and impact of the risk factors on health events in human populations and the types of bias in epidemiological studies. It also covers the issues of sampling and the methods of summarizing and presenting health-related data. The second part of the course focuses on biostatistics and covers the methods of data collection and analysis, probability distribution of different outcomes. It also covers the concept of estimation (confidence intervals), hypothesis testing & statistical significance, correlation, performance characteristics of diagnostic tests, and practice in critical reading of medical literature. The course also includes a practical part in the laboratory on the basics of the performing statistical analysis of data using the SPSS statistical program.
FDSC300	Technology of Food Products	3	Introduction to the different technologies involved in food production from raw materials to the end product. Application of biotechnology to the production of raw materials, as well as to the production, processing, storage, packaging, preparation of food products is briefly discussed. Different chemical, microbiological, and physical changes that occur to food are introduced as well.
CHEM255L	Basic Organic Chemistry Lab	1	CHEM255L is a laboratory course to teach the students several common organic chemistry techniques. Emphasis is placed on experimental precision and accurate results as well as safe laboratory procedures. This laboratory course is for students with good aptitude for synthesis in organic chemistry and who want to learn the preparation, isolation, and identification of organic compounds. Students will have also the opportunity to explore interesting areas of organic chemistry and work more independently on the laboratory.

CHEM255	Basic Organic Chemistry	3	This course is an introduction to the basics concepts of organic chemistry. We will cover electronic structure and bonding with an emphasis on the relation between structure and physicochemical properties. It also covers nomenclature, stereochemistry, reactivity of aliphatic hydrocarbons, aromatic compounds, alcohols, aldehydes, ketones, carboxylic acids and derivatives in addition to the practical aspects of organic chemistry in numerous health and daily life related situations.
CHEM200L	General Chemistry Lab	1	This course lab covers the principles of general chemistry with emphasizing on laboratory applications to all concepts covered in the general chemistry course as well as preparing students to the lab work. Moreover, in this course lab, you will be introduced to the world of chemistry in terms of preparing solutions, experimenting and analyzing collected data. You will also have the chance to become familiar with lab material and equipment, learn enough about chemical substances, storing and mixing material as well as their applications in the chemical and pharmaceutical fields.
CHEM200	General Chemistry	3	This course is a first semester course, intended for students who desire to acquire the basic principles in chemistry. The emphasis of the course will be on the fundamental principles of general chemistry, which include terminology, qualitative concepts and quantitative skills. The general topics included in this course are: Quantum Theory of the Atom; Electrons and Periodicity; Bonding; Molecular Geometry; Hybridization; Acid/base Chemistry; Kinetics and reactions mechanism and Solubility and Complex ion equilibria.
BMGT200	Introduction to Business Management	3	The course focuses on how organizations operate in an era of rapid change, and the factors which determine how managers can operate effectively. Topics include the management function; the genesis of modern management; the development of management theory; the context in which managers operate; and managing organizations. The course integrates classical and modern concepts with a rich collection of contemporary real-world examples and cases. The course covers six major themes that guide the progress through the fascinating world of management, namely: Change, Skill development, Global economy, the Internet revolution, Diversity, and Ethics.
BIOL200L	General Biology I Lab	1	General Biology I lab introduces students to basic techniques and safety practices in the laboratory; reinforcing the concepts learned in General Biology I lecture. It provides hands-on experience of some of the concepts discussed in the latter course.
BIOL200	General Biology I	3	This course aims to familiarize the student with the organization and classification of living systems. The covered topics include mainly the cell structure and function, cell division, cell biochemistry, cellular respiration, DNA structure and protein function, as well as animal development and classification. This course has a separate one credit-laboratory component.

BIOC310	Medical Biochemistry	4	The study of human biochemistry describes how the body works, and provides a basis for understanding what can, and often does, go wrong. From a physician's point of view, biochemistry provides not only a description of **how the system works**, but also a foundation for understanding how to improve its operation through appropriate nutrition, exercise, preventive medicine, **how to diagnose problems** and, where possible, **how to remedy them.** Current therapies include recombinant proteins, such as human insulin or erythropoietin synthesized by bacteria, and future therapies will include genetic engineering, involving gene rather than organ transplants. To understand how the human body works, and the basis of the therapies for its maintenance and healing, it is essential to understand not only the chemistry of the reactions, but also the functional interactions between metabolic pathways, organs, and tissues. This, in a broad sense, is the realm of physiologic biochemistry.
BMED445	Pathophysiology	3	Pathology is an integrative biomedical science that forms the theoretical base of modern medicine. Together with the fundamental mechanisms of disease origin and development, pathophysiology deals with the mechanisms of disease prevention, compensation of the damaged functions and recovery. Knowledge of these mechanisms is needed for elaboration of principles and methods of therapy and prophylaxis. It is a Subject that bridges between basic theoretical disciplines and clinical medicine and lays a background to the clinical thinking of healthcare workers including physicians, pharmacists and biomedical technicians. This Pathophysiology course is divided into three major parts. The first part is devoted to general concepts of disease origin and development as well as to detailed study of general pathological processes. The second part studies the most common systemic disorders. The third part of the course covers common disease processes of different organs and systems. These major parts include the following principal points
BIOL360	Human Physiology & Anatomy	4	This course is designed to teach students human physiology and anatomy. Physiology is the study of the process or function of living things. The major goals of physiology are to understand the response of the body to stimuli and understand how the body maintains conditions within homeostasis in various environmental conditions. The study of physiology consists of many different levels including cell physiology, organ physiology and systemic physiology. Students will be exposed to all of these levels starting at the cellular level and eventually moving up to the system level. Physiology and anatomy are closely related subjects. Anatomy is the scientific discipline that investigates body structures. Often to fully appreciate the physiology of a given system it is necessary to first examine its anatomy. A true understanding and appreciation of physiology can only occur if structure and function are concurrently learned.
FDSC300L	Technology of Food Products Lab	1	This course provides the students with theoretical and analytical experience in common methods of food analysis and processing.
BIOL385	Microbiology	3	This course covers principles of microbiology with emphasizing on the diversity and structural characteristics of microorganisms, impact of microbes on everyday life and the role of microbes in the host-pathogen interactions. Moreover, in this course, you will be introduced to the world of microbiology in terms of isolation, identification and classification. Also, you will have the chance to discover examples of different groups and species of microorganisms that have direct impact on human health, mechanism of causing diseases and the beneficial effects on the biotechnology sector as applications in the food industry.

BIOL385L	Microbiology Lab	1	Microbiology laboratory is a two hours a week laboratory course with experiments in microbial culture, staining techniques, disinfection, and sterilization. Isolation of bacteria from mixed cultures. Use various metabolic reactions in the identification and classification of organisms.

General Education Requirements

Code	Title	Credits	Description
ENGL251	Communication Skills	3	Workplace Occupational Writing is an advanced interdisciplinary writing course emphasizing workplace and technical communication and editing appropriate to diverse professions. It incorporates practice and study of selected types of discourse employed in professional writing situations, preparing students for different systems of writing in their professional lives. Examples from the writing of workplace professionals are analyzed and used as models to demonstrate the transition from academic to professional writing.
ENGL201	Composition and Research Skills	3	This course builds upon the skills acquired in pre-requisite courses mainly ENGL 151 to further develop students' critical thinking and academic writing competencies. Students will read and respond to a variety of texts from different disciplines and produce a research paper using analytical and critical skills in response to texts.
CULT200	Introduction to Arab - Islamic Civilization	3	Øª Ù□Ù□Ø«Ù□Ù□ Ø§Ù□ØØ¶Ø§Ø±Ø© Ø§Ù□Ø¹Ø±Ø¨Ù□Ø© Ø§Ù□Ø¥Ø³Ù□Ø§Ù□Ù□Ø© Ù□Ø§ØØ¯Ø© Ù□Ù□ Ø£Ù□Ù□ Ø§Ù□Ø-Ø¶Ø§Ø±Ø§Øª Ù□Ù□ Ø§Ù□ØªØ§Ø±Ù□Ø® Ø¨Ù□Ø§ Ø£Ù□Ø¬Ø²ØªÙ□ Ù□Ù□ Ø¥Ø¨Ø¯Ø§Ø¹Ø§Øª Ø¹Ù□Ù□Ù□Ø© Ù□Ø«Ù□Ø§Ù□Ù□Ø© Ù□ØØ¶Ø§Ø±Ù□Ø© ØªØ±Ù□Øª Ø£Ø«Ø±Ù□Ø§ Ø§Ù□Ø¹Ø¸Ù□Ù□ Ù□Ù□ ØªØ§Ø±Ù□Ø® Ø§Ù□Ø¨Ø´Ø±Ù□Ø©. ØªÙ□Ø´Ù□Ù□Ù□ Ù□Ø°Ù□ Ø§Ù□Ù□Ø§Ø¯Ø© Ø§Ù□Ø¯Ø±Ø§Ø³Ù□Ø© Ù□Ù□Ø¯Ù□Ø©Ù□ Ø£Ø³Ø§Ø³Ù□Ø© Ù□Ù□ØªØ¹Ø±Ù□ Ù□Ù□ Ø¹Ø±Ø¨Ù□ Ø¹Ù□Ù□ ØªØ§Ø±Ù□Ø® Ø-Ø¶Ø§Ø±ØªÙ□Ø□ Ù□Ø§ Ù□Ù□Ù□ØªØ®Ø± Ø¨Ù□Ø§ Ù□ØØ³Ø¨Ø□ Ø¨Ù□ Ù□Ù□Ø¬Ø¹Ù□ Ù□Ù□Ù□Ù□Ø§ ØØ§Ù□Ø²Ù□Ø§ Ù□Ø³ØªÙ□Ù□Ø¶ Ø¨Ù□ Ù□Ø§Ø¨Ù□Ù□Ù□Ø§ØªÙ□ Ù□Ù□Ø¯Ø±Ø§ØªÙ□ Ø§Ù□Ø¹Ù□Ù□Ù□Ø© Ø§Ù□Ù□Ø§Ù□Ù□Ø© Ù□Ø¥Ø¹Ø§Ø¯Ø© Ø§Ù□Ø§Ø³ØªÙ□Ù□Ø§Ø¶ Ø§Ù□Ø-Ø¶Ø§Ø±Ù□. Ù□ØªØØ±Ù□ Ø§Ù□Ù□Ø§Ø¶Ù□ Ù□Ù□Ù□Ø§ Ø¯Ù□Ù□ Ø´Ø¹Ù□Ø±Ù□ Ù□Ø§Ø¹Ù□ Ù□Ù□Ù□Ø§Ø□ Ø¹Ù□Ù□ Ø£Ù□Ù□ Ù□Ø°Ø§ Ø§Ù□Ù□Ù□Ù□Ù□Ø±Ù□Ø± Ø§Ù□Ø¯Ø±Ø§Ø³Ù□ Ù□ØØ§Ù□Ù□ Ø£Ù□Ù□ Ù□Ø³ØªØ«Ù□Ø± Ø§Ù□Ù□Ø¹Ù□ Ø§Ù□ØØ¶Ø§Ø±Ù□ Ù□Ø§Ù□Ø«Ù□Ø§Ù□Ù□ Ø¹Ù□Ø¯ Ø§Ù□Ø·Ù□Ø§Ø¨ Ø§Ù□Ø¹Ø±Ø¨Ø□ Ù□Ù□Ø³ØªÙ□Ù□Ø¯ Ù□Ù□ Ù□Ø°Ø§ Ø§Ù□Ù□Ø®Ø²Ù□Ù□ Ù□Ù□ØµÙ□Ø¹ Ø£Ù□Ù□Ù□Ù□Ù□Ø§ Ø¬Ø¯Ù□Ø¯Ø§ Ù□Ù□Ù□Ù□Ø³ØªÙ□Ø¨Ù□.
CSCI200	Introduction to Computers	3	The course aims at making students competent in computer-related skills. It is supposed to develop basic computer interface knowledge by providing an overview of managing folders and files, opening a start menu, and hands-on practice on typical software applications such as Word, Excel, and PowerPoint. The student will learn how to use the new features of Microsoft Office 2017, mainly Word documents, Excel spreadsheets, and PowerPoint presentations. Moreover, the course aligns with the Cisco Networking AcademyÂ® Get Connected course, which helps students understand how to connect to the Internet.
ARAB200	Arabic Language and Literature	3	ØªØªØ£Ù□Ù□ Ù□Ø§Ø¯Ø© Ø§Ù□Ù□ØºØ© Ø§Ù□Ø¹Ø±Ø¨Ù□Ø© Ù□Ø¢Ø¯Ø§Ø¨Ù□Ø§ Ù□ØºÙ□Ø± Ø§Ù□Ù□ØªØ®ØµØµÙ□Ù□ Ù□Ù□ Ø«Ù□Ø§Ø«Ø© Ø£Ù□Ø³Ø§Ù□Ø□ Ø£ØØ¯Ù□Ø§ Ù□ØªÙ□Ø§Ù□Ù□ Ø¯Ø±Ù□Ø³Ø§Ù□ Ø£Ø³Ø§Ø³Ù□Ø© Ù□Ù□ Ø§Ù□Ù□ØØ□ Ù□Ø§Ù□ØµØ±Ù□ Ù□Ø§Ù□Ø¨Ù□Ø§ØºØ©. Ù□Ø§Ù□Ø«Ø§Ù□Ù□ Ù□ØªÙ□Ø§Ù□Ù□ Ù□Ø¨Ø§ØØ« Ù□Ù□ Ø§Ù□Ø£Ø¯Ø¨ Ù□Ø§Ù□ØªØØ□Ù□Ù□Ù□. Ø£Ù□Ø§ Ø§Ù□Ù□Ø³Ù□ Ø§Ù□Ø«Ø§Ù□Ø« Ù□Ù□Ø¹Ø§Ù□Ø¬ Ø¨Ø¹Ø¶ ØªÙ□Ù□Ù□Ù□Ø§Øª Ø§Ù□ØªØ¹Ø¨Ù□Ø± Ù□Ø§Ù□ØªÙ□Ø§ØµÙ□.