School	School of Arts & Science
Major	Bachelor of Nutrition and Dietetics

General Education Requirements			
Code	**Title**	**Credits**	**Description**
ARAB200	Arabic Language and Literature	3	تتألف مادة اللغة العربية وآدابها لغير المتخصصين من ثلاثة أقسام، أحدها يتناول دروساً أساسية في النحو والصرف والبلاغة. والثاني يتناول مباحث في الأدب والتحليل. أما القسم الثالث فيعالج بعض تقنيات التعبير والتواصل.
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 Academy® Get Connected course, which helps students understand how to connect to the Internet.
CULT200	Introduction to Arab - Islamic Civilization	3	تُمثّل الحضارة العربية الإسلامية واحدة من أهم الحضارات في التاريخ بما أنجزته من إبداعات علمية وثقافية وحضارية تركت أثرها العظيم في تاريخ البشرية. تُشكّل هذه المادة الدراسية مقدمةً أساسية ليتعرف كل عربي على تاريخ حضارته، لا ليفتخر بها وحسب، بل ليجعل منها حافزًا يستنهض به قابليّاته وقدراته العلمية الكامنة لإعادة الاستنهاض الحضاري. يتحرك الماضي فينا دون شعورٍ واعٍ منّا، على أنّ هذا المُقرّر الدراسي يحاول أنْ يستثير الوعي الحضاري والثقافي عند الطلاب العرب، فيستفيد من هذا المخزون ليصنع أُفقًا جديدًا للمستقبل.
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.
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.

Core Requirements			
Code	**Title**	**Credits**	**Description**
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.
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.
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.

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.
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.
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.

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.
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.
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.
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.

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.

Major Requirements			
Code	**Title**	**Credits**	**Description**
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
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.
FDSC300L	Technology of Food Products Lab	1	This laboratory course complements theoretical knowledge by offering students hands-on experience in common methods of food analysis and processing. Students will learn and apply analytical techniques to assess the physical, chemical, and microbiological properties of food products. Practical sessions will focus on evaluating food quality, ensuring compliance with standards, and understanding how processing techniques impact the final product

FDSC420	Food Processing	3	This course provides a foundational overview of food processing across key industry sectors, including dairy, baking, beverages, oils, fruits, vegetables, chocolate and meat. Students will explore the raw materials used, the technologies involved in processing, and the market availability of various food products. The course examines how processing methods influence food safety, nutritional composition, sensory attributes, and overall quality. Additionally, it highlights the importance of recognizing and controlling quality and production parameters to ensure food safety and product consistency. Furthermore, it familiarizes students with industrial practices and highlights the importance of adhering to safety and regulatory standards.
FDSC425L	Food Processing Lab	1	This practical laboratory course introduces students to common methods of food preservation and processing. Through hands-on experimentation, students will gain a deeper understanding of food processing techniques such as raw materials and ingredients selection and preparation (cleaning, sorting, peeling, size reduction and blanching), fruits and vegetables processing (concentration and pickling), dairy production (fermentation, cheese making, and churning), baking and meat preparation. The course emphasizes the role of these methods in maintaining food safety, extending shelf life, and retaining nutritional and sensory properties.
FDSC460	Food Service Management	3	This course provides a comprehensive overview of managing foodservice organizations, emphasizing both business and scientific aspects. Students will study operational strategies, including profit management, location planning, and resource optimization, alongside critical topics like food safety, hygiene, and menu development. The course also covers dietary modifications for special nutritional needs and explores different types of foodservice systems, including institutional, commercial, and healthcare settings. By integrating practical examples, students will learn to evaluate and improve the efficiency and quality of foodservice operations.

NUTR250	Basic Nutrition	3	This course introduces students to the fundamental principles of human nutrition, focusing on the major nutrients, their food sources, and their roles in the body. Topics include nutrient digestion, absorption, and metabolism, as well as the physiological functions of macronutrients and micronutrients. The course also provides an overview of dietary guidelines and the characteristics of a balanced diet, emphasizing their importance in promoting health and preventing disease.
NUTR315	Human Nutrition and Metabolism	4	This course offers an in-depth exploration of essential nutrients, their roles in human health, and their physiological functions. Topics include dietary guidelines, recommended nutrient intakes, and current dietary goals. Students will study the processes of digestion, absorption, and metabolism, as well as the implications of nutrient supplementation and interactions. The course also addresses specialized topics, including alcohol metabolism and vegetarian diets, to provide a holistic understanding of nutrition.
NUTR351	Nutritional Assessment and Counseling	4	This course equips students with the knowledge and skills needed to perform comprehensive nutritional assessments. It covers the four domains of nutritional assessment: anthropometry (measuring body composition), biochemical analysis (laboratory testing), clinical evaluation (signs and symptoms of malnutrition), and dietary assessment (dietary intake and analysis). Students will learn how to interpret data and apply it to evaluate an individual's nutritional status, identify deficiencies, and develop appropriate intervention plans. They will learn to counsel clients effectively and plan individualized diets based on the anthropometric, biochemical, clinical, and dietary data collected.
NUTR400	Nutrition Through Life Span	3	This course examines the nutritional requirements and challenges faced throughout the human life cycle, from infancy to old age. It focuses on the changing nutritional needs during key stages, including fetal development, pregnancy, lactation, childhood, adolescence, adulthood, and aging. The course emphasizes the role of nutrition in growth, development, and disease prevention, as well as the unique dietary considerations at each stage of life.

NUTR411	Therapeutic Nutrition	4	This course bridges the gap between nutrition and clinical practice by integrating pathophysiology with nutritional sciences. Students will learn how diseases influence nutritional needs and how tailored nutrition interventions can support disease management and recovery. Case studies and practical applications are used to develop skills in creating evidence-based nutritional care plans for a variety of medical conditions.
NUTR440	Obesity & Regulation of Body Weight	3	This course provides an in-depth examination of obesity, focusing on its causes, consequences, and management strategies. Students will explore the physiological, psychological, and environmental factors contributing to obesity across the lifespan. The course covers evidence-based approaches to treating and preventing obesity and obesity-related comorbidities, including dietary modifications, physical activity and behavioral therapies.
NUTR450	Community Nutrition	3	This course emphasizes the role of community nutritionists in promoting public health, preventing disease, and addressing malnutrition. Students will explore strategies for developing and implementing nutrition education programs, with a focus on addressing micronutrient deficiencies and improving food security. The course also examines national and international nutrition policies, public health objectives, and the design of community-based interventions to improve population health.
NUTR475	Inborn Errors of Metabolism	3	This advanced course explores the dietary management of rare genetic disorders, known as inborn errors of metabolism. Students will examine the genetic, biochemical, and physiological basis of these conditions and learn how to use dietary therapy to manage them effectively. The course integrates knowledge from multiple disciplines, including nutrition, genetics, biochemistry, and clinical practice, to provide students with a holistic understanding of these complex disorders.
NUTR485	Selected Topics in Clinical Nutrition	3	Building on the concepts introduced in the therapeutic courses, this course deepens students' understanding of medical nutrition therapy. It focuses on advanced disease states and specialized nutrition care plans, equipping students with the skills to manage complex medical conditions through tailored nutritional interventions. Practical case studies provide hands-on experience in clinical nutrition.

NUTR490	Nutrition Seminar	1	This course focuses on developing students' ability to communicate scientific concepts effectively to diverse audiences. Students will selec_t recent topics in nutrition and food science, conduct thorough research, and present their findings in a professional setting. The course emphasizes scientific writing, oral presentation skills, and critical analysis. Active audience participation fosters a collaborative environment where students receive constructive feedback on their presentations and learn about emerging topics in the field.