School	School of Arts & Science
Major	Bachelor of Information Technology

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**
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.
BSTA205	Introduction to Business Statistics	3	This course is designed to provide students with an introductory survey of many applications of descriptive and inferential statistics. Using the behaviorism and cognitivism theories that focus on facts, knowledge, concepts and skills, this course addresses the direct, indirect, and experiential strategies through lectures, workbooks, handouts, and problem-solving methods to classify and graphically present data among different measurement levels, calculate measures of location and dispersion, understand the basic probability concepts, and examine discrete and continuous probability distributions. Further, this course is designed to provide students with the needed techniques used in inferential statistics. In this course, students learn to perform and interpret several tests including confidence intervals, hypothesis testing, regression, and correlation analysis.
CSCI250	Introduction to Programming	3	This course introduces the basic concepts and principles of structured programming in Java. It starts with an introduction to Java showing its syntax and the structure of a program in Java then teaches simple data types, control structures, methods, arrays, and strings.
CSCI250L	Introduction to Programming Lab	1	This course is a co-requisite for the Introduction to Programming course (CSCI250). The students apply in the lab the fundamentals of programming explained in CSCI250 by solving lab exercises. In this lab, students solve programming problems by using primary data types, selection and repetition structures, methods and arrays. This lab is an opportunity for the students to have direct help when needed from the instructor, but it is not sufficient for practice; students should practice with more exercises on their own.

CSCI300	Intermediate Programming with Objects	3	The course emphasizes the principles of Object Oriented Programming using the Java Programming Language. It starts by an introduction to creating applications using Java. Then the course introduces how to define classes and declare objects and discusses the main topics related to object-oriented programming (constructors, methods, dependency, aggregation, inheritance, and polymorphism). Finally, the course introduces exception handling as well as writing to and reading from files.
CSCI300L	Intermediate Programming with Objects Lab	1	This course is a co-requisite for the Intermediate Programming course (CSCI300). The students implement and practice in the lab the concepts and the programming techniques they learn in CSCI300 by solving lab exercises. The main concepts of the Java language as well as the object-oriented programming issues are to be discussed and implemented in this module using the **NetBeans IDE**.
CSCI335	Database Systems	3	This course introduces fundamentals of database systems. It starts by motivating the need of the database approach in real life scenarios and the benefit of adopting a Database Management System (DBMS). This course includes data modeling (based on the entity relationship model), data normalization and data manipulation using SQL queries. Students will learn how to design, implement and query a relational database by using a Microsoft SQL Server DBMS.
CSCI342	Fundamentals of Networking Technologies	3	The course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the CCNA curriculum.
CSCI380	Software Engineering	3	This course provides an understanding of the system development process which links user requirements to a computer based system. This course emphasizes problem formulating and problem solving. Students will learn how to analyze a problem domain and develop the appropriate analysis and design models to formalize the requirements using object oriented methods and appropriate theory.

CSIT205	Introduction to Information Technology	3	This course introduces students to the foundational concepts of Information Technology (IT), including computer systems, software, networking, data, and introductory programming. Alongside technical skills, students will explore ethical considerations in the use and development of IT systems. The course covers basic computational thinking, the structure of IT systems, and problem-solving using flowcharts and fundamental programming concepts. Emphasis is placed on hands-on learning through solving sessions and beginner-level programming logic, with a focus on responsible and ethical technology use.
MATH210	Calculus II	3	This is the second course in the Calculus sequence. The course material includes logarithmic, exponential, and trigonometric functions, their inverses and their derivatives, integration techniques, improper integrals, sequences, infinite series, tests of convergence, alternating series, power series, polar coordinates and its application.
MATH225	Linear Algebra with Applications	3	This course provides an introduction to linear algebra topics. Emphasis is placed on the development of abstract concepts and applications for vectors, systems of equations, matrices, determinants, vector spaces, multi-dimensional linear transformations, eigenvectors, eigenvalues, diagonalization and orthogonality. The concepts of linear algebra are extremely useful in physics, economics and social sciences, natural sciences, and engineering.
MATH257	Elements of Discrete Mathematics	3	This course introduces fundamental concepts of discrete mathematics essential for computer science and IT applications. Topics include logic, set theory, combinatorics, relations, graphs, trees, and formal languages. Emphasis is placed on mathematical reasoning, algorithmic thinking, and problem-solving skills. Students will learn to model and analyze real-world problems using discrete structures. The course bridges theory and practice to build a solid foundation for advanced computing courses.

Major Requirements			
Code	**Title**	**Credits**	**Description**
BMIS300	Management Information Systems	3	The course provides an overview of Management Information Systems (MIS) within a business context with an emphasis on end-user computing. It covers MIS theory and practice as they relate to management and organization theories, current trends in MIS, managerial usage of information systems, and computer hardware, software, and telecommunications. It also provides experiential learning through exposure to various decision-support tools.
CSCI362	Network Security	3	Cisco Systems are market leaders in supplying networking equipment for the internet. They also have a well-established educational program for network professionals. The course helps students develop the skills needed for network security career opportunities and to startpreparingfor Cisco industry-level certifications including the following: CSCI362 helps students develop the skills needed for network security career opportunities and prepare for the aforementioned industry-level certifications. It provides theoretically rich, hands-on practices to network security, in a logical sequence driven by Cisco technology.
CSCI390	Web Programming	3	This course presents the fundamentals of web programming and design at client side. At first, the course introduces students to Hyper Text Markup Language (HTML) which is the basic language used to create properly structured web pages. Students then learn Cascading Style Sheet, which allows them to design the content of web pages. With the variety of devices from which websites are accessed today, designing a responsive website became a must. Therefore, students learn how to structure the web pages content to be displayed responsively on different screen dimensions. To create dynamic websites, students learn the most popular scripting language JavaScript, in addition to the popular jQuery library that simplifies the tasksmade with JavaScript.
CSCI392	Computer Networks	3	The **Routing and Switching Essentials** course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality.

CSCI430	Operating Systems	3	This course presents an introductory study of operating system basics. It focuses on the essential operating system concepts more specifically those related to process and its creation and termination, process communication, process scheduling and synchronization as well as an overview of memory management and strategies used for this purpose. By the end of this course the student should have full understanding of operating system theory, structure and mechanism. This would include Full analysis of Multitasking systems and process communications as well as memory management. The student should have the ability to develop a project related to Operating system Concept.
CSCI430L	Operating Systems Lab	1	This course is a co-requisite for Operating System course. The students apply in the lab the concepts they learn in the course by solving lab exercises. The concepts include a fundamental practice of Linux OS and the basics related to process management seen in the course. These basics include process creation and termination, process communication, and process synchronization using semaphore. The student will be able to practice all these concepts by developing, debugging, and testing programs under the Linux platform.
CSCI490	Information System Development	3	Information systems development is a legitimate engineering discipline. Software process models, software engineering methods, and software tools have been adopted successfully across a broad spectrum of industry applications. Effective development of an information system depends on proper utilization of a broad range of information technology, including database management systems, operating systems, computer systems, and telecommunications networks. This course covers the phases from physical system design through the installation of working information systems; Concentrates on using the results of systems analysis and design, typically documented in CASE technology, and either building or generating systems to meet these specifications. The course is a semester-long field project with various hands-on exercises that provide practical experience in building, testing, and installing a system.

CSIT381	Microcomputer Support	3	Micro Computer Support curriculum provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. The curriculum covers the fundamentals of PC computer technology, networking, and security, and also provides an introduction to advanced concepts. Micro Computer Support is a hands-on, career-oriented e-learning solution with an emphasis on practical experience to help students develop fundamental computer skills, along with essential career skills. Micro Computer Support curriculum helps students prepare for entry-level ICT career opportunities and the CompTIA A+ certification, which helps students, differentiate themselves in the marketplace to advance their careers.
CSIT415	System and Network Administration	3	This course is intended to prepare its audience to act as system administrators by implementing Active Directory Service ADDS in distributed environments that can include complex network services and domain controllers. The material covered in this course will assist you (but not limited) to deploy Active Directory Domain Services, efficiently administering and automate the administration of users, groups, and computers, manage the configuration and security of a domain by using Group Policy, directory services auditing, implement effective name resolution with(DNS) and monitor server performance.
CSIT430	Internetworking and Routing Protocols	3	The **Routing and Switching Essentials** course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality.
CSIT482	Human-Computer Interaction	3	This course explores the principles and practices of Human-Computer Interaction (HCI), focusing on the design, evaluation, and implementation of user interfaces. Topics include user psychology, interaction design, usability evaluation, and emerging trends in HCI, aiming to equip students with the skills to create user-friendly and accessible computing systems.

CSIT499	Professional development in IT	3	The course provides senior computer science students with the opportunity to gain practical experience in real-world IT environments. Students will apply their theoretical knowledge to hands-on tasks in fields such as software development, network management, and IT support. Internship placements may include tech companies, startups, government organizations, and other entities where IT expertise is required. Throughout the course, students will participate in regular check-ins with faculty, reflect on their experience, and submit a final report that outlines the outcomes of their internship.