

Major		Bachelor of Science in Information Technology	
Major Requirements			
Code	Title	Credits	Description
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.
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.
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 .
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 task made 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.
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.

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.
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.
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.
CSCI426	Web Programming Advanced	3	This course provides a thorough introduction into the creation of a mobile-friendly websites using the Bootstrap framework. This course presents students with the principles necessary to design and develop client-side scripts used to build dynamic websites and applications using JavaScript.We seek an advanced mastery of web-development techniques that use databases to create content—HTML form objects, database connections, and server-side programming. We use open-source MySQL as database, structured query language (SQL), and PHP5 for programming.
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.
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.

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.
CSCI205	Computer Science Overview	3	This course presents breadth coverage of computer science courses to understand computing and appreciate technology's impact on society. Topics include binary values and number systems; data representation; gates and circuits; computing components; operating systems; file systems and directories; information systems; computer networks; and elementary Programming.
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.
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.
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.
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.
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.

CSIT480	Interconnecting Networks	3	The Connecting Networkscourse discusses the WAN technologies and network services required by converged applications in a complex network.Students learn how to configure routers for WAN, Access lists for IPv4 and IPv6, Network monitoring and securing Site-to-Site Connectivity, Quality of service, and Network Evolution.
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.
BMIS360	Operations Management	3	Operations is an exciting area of management that has a profound effect on productivity. The goal of this course is to present students with a broad introduction to the field of operations in a realistic, practical, and applied manner. The course topics include operations and productivity, project management, forecasting, and location strategies.
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.
CSCI491	Internship	3	This course is three credits course for senior students. The internship is an excellent opportunity for students to gain hands-on experience and prepare for a successful career in the technology field. Internship sites may include software development companies, tech startups, government agencies, or other organizations where computer science skills are in demand. The student applies theoretical and practical skills acquired during their undergraduate education to gain vital industry experience. This allows the students to receive a professional learning experience that provides relevant, hands-on work relating to their study or career interest. Students will be expected to participate in periodic meetings with a faculty member, and submit a final report summarizing the outcomes of their work experience.

General Education Requirements

Code	Title	Credits	Description
ARAB200	Arabic Language and Literature	3	ØªØªØ£ÙÙÙ ÙÙØ\$Ø`Ø© Ø\$ÙÙÙØªØ© Ø\$ÙÙØ¹Ø±Ø`ÙÙØ© ÙÙØ¢Ø`Ø\$Ø`ÙÙØ\$ ÙÙØªÙÙØ± Ø\$ÙÙÙÙØªØ®ØµØµÙÙÙ ÙÙÙ Ø«ÙÙØ\$Ø«Ø© Ø£ÙÙØ³Ø\$ÙÙÙ Ø£ØØ`ÙÙØ\$ ÙÙØªÙÙØ\$ÙÙÙ Ø`Ø±ÙÙØ³Ø\$ÙÙ Ø£Ø³Ø\$Ø³ÙÙØ© ÙÙÙ Ø\$ÙÙÙÙØÙÙ ÙÙØ\$ÙÙØµØ±ÙÙ ÙÙØ\$ÙÙÙ`ÙÙØ\$ØªØ©. ÙÙØ\$ÙÙØ«Ø\$ÙÙÙ ÙÙØªÙÙØ\$ÙÙÙ ÙÙØ`Ø\$ØØ« ÙÙÙ Ø\$ÙÙØ£Ø`Ø` ÙÙØ\$ÙÙØªØªÙÙÙÙ. Ø£ÙÙØ\$ Ø\$ÙÙÙÙØ³ÙÙ Ø\$ÙÙØ«Ø\$ÙÙØ« ÙÙÙÙØ¹Ø\$ÙÙØ¬ Ø`Ø¹Ø¶ ØªÙÙÙÙÙÙØ\$Øª Ø\$ÙÙØªØ¹Ø`ÙÙØ± ÙÙØ\$ÙÙØªÙÙØ\$ØµÙÙ.

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	This course is designed to provide students with a comprehensive understanding of the Arab and Islamic world. It covers the history, culture, and civilization of the Arab world, from the early Islamic period to the present. The course includes a study of the Arabic language, the Islamic faith, and the role of the Arab world in the world today. The course is divided into three main parts: the history of the Arab world, the culture of the Arab world, and the role of the Arab world in the world today. The first part covers the early Islamic period, the rise of Islam, and the expansion of the Islamic empire. The second part covers the culture of the Arab world, including the Arabic language, the Islamic faith, and the role of the Arab world in the world today. The third part covers the role of the Arab world in the world today, including the Arab Spring, the Arab world's role in the global economy, and the Arab world's role in the global environment. The course is designed to be a comprehensive introduction to the Arab and Islamic world, and to provide students with a solid foundation for further study in the field.
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.