School	
Major	Bachelor of Science in Information Technology

Major Requirements			
Code	**Title**	**Credits**	**Description**
CSCI390	Web Programming	3	The course investigates various techniques used for designing web pages. Presenting the basics of static web page design using HTML. Dynamic web page design using JavaScript. Introduces the server side scripting languages such as : ASP and PHP4. Prerequisite(s): CSCI 300
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 three credit course will introduce the student to the basic concepts required from every Network and system administrator. These concepts include but are not limited to the installation of multiple operation systems, configuring computer networks and the administration of users and groups. The administration and configuration of core networking services such as DNS and Firewalls will also be discussed.
CSCI430	Operating Systems	3	Fundamental overview of operating systems. First Quarter: Operating system structures, processes, process synchronization, deadlocks, CPU scheduling, memory management, file systems, secondary storage management. Requires substantial programming projects. Prerequisites: High Junior Standing or instructor□s consent.
CSCI430L	Operating Systems Lab	1	This course is a co-requisite for the Operating System course. The students apply in the lab all concepts they learn in the Operating System course by solving lab exercises, and preparing several projects. The concepts include a fundamental practice of Linux OS and the basics related to process management discussed in the course sessions. These basics include process creation and termination, process communication, and process synchronization using semaphores. The students will be able to practice all of these concepts by developing, debugging, and testing programs under one of the Unix/Linux distributions.
CSCI362	Network Security	3	The course teaches the policies and practices adopted to monitor and prevent unauthorized access to computers and resources connected to the network. The student will learn how to protect the underlying networking infrastructure from unauthorized access, misuse, malfunction, modification, destruction,__improper disclosure Protection: The student will learn how to configure the system and networks and to identify when some network traffic encounters a problem and how to respond to them and return to a safe state as rapidly as possible

CSCI426	Web Programming Advanced	3	This course teaches Server Side Scripting technologies that allow the creation of complex Web applications to generate Web pages dynamically. 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 a database, structured query language (SQL), and PHP5 for programming,__ASP.NET with C# as code behind and SQL.NET for managing the database.
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.
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 lectures focus on presenting the concepts, commands, and practices required to deal with Cisco switches and routers to operate in corporate internetworks through the following structure: 1-Build LANs and understand overcoming problems associated with Layer 2 switching 2-Evaluate the differences between link-state and distance vector routing protocols 3-Configure and troubleshoot OSPF in a single area
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.
CSIT491	Internship	1	Internship

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.
CSCI205	Computer Science Overview	3	This course presents breadth coverage of computer science courses so that students would 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 by 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. The objective of the lab is to implement programming problems using basic data types, selection and repetition structures, methods and arrays.
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.he 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 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 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 ITNcourse 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	Introduction to the systems of linear equations and matrices, Gaussian eliminations, matrix operations, inverses, types of matrices, determinants and their applications, vector spaces, subspaces, linear independence, basis and dimension, rank and nullity, inner product spaces and orthogonal bases, eigenvalues and eigenvectors, applications from other disciplines such as physics, computer science, and economics.
BSTA205	Introduction to Business Statistics	3	This course is designed to provide students with an introductory survey of many applications of descriptive statistics. In this course, students are expected to classify and graphically present data among different measurement levels. They are also expected to calculate measures of location and dispersion, understand the basic probability concepts, and examine discrete and continuous probability distributions.

CSCI380	Software Engineering	3	This course provides an understanding of the system development process which links user requirements to the 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.

General Education Requirements			
Code	**Title**	**Credits**	**Description**
ARAB200	Arabic Language and Literature	3	This course is a comprehensive review of Arabic Grammar, Syntax, major literature and poetry styles, formal and business letters.
CSCI200	Introduction to Computers	3	The course aims at making students competent in computer-related skills. It is supposed to develop basic computer knowledge by providing an overview of the computer hardware and basic components as well as hands-on practice on common software applications such as Word, Excel, Power Point, Internet and Email. The student will learn how to use the new features of Microsoft Office 2010 mainly Word documents, Excel spreadsheets and PowerPoint presentations. On the surface, MS Office 2010 looks a lot different than previous versions (no more menus__toolbars!), but by learning to understand the dramatically changed, Ribbon-based interface, you'll quickly get back on the road to productivity.
CULT200	Introduction to Arab - Islamic Civilization	3	The purpose of this course is to acquaint students with the history and achievements of the Islamic civilization. Themes will include patterns of the political and spiritual leadership; cultural, artistic, and intellectual accomplishments Prerequisites: ENGL051, ENGL101, ENGL151.
ENGL201	Composition and Research Skills	3	This course focuses on the development of writing skills appropriate to specific academic and professional purposes; the analysis and practice of various methods of organization and rhetorical patterns used in formal expository and persuasive writing; the refinement of critical reading strategies and library research techniques; and the completion of an academically acceptable library research paper. Prerequisites: ENGL150, ENGL151.
ENGL251	Communication Skills	3	The objectives of this course are to improve students writing skills for academic purposes by developing effective use of grammatical structures; analytical and critical reading skills; a sensitivity to rhetorical situation, style, and level of diction in academic reading and writing; and competence in using various methods of organization used in formal writing.