2005/2006/2007/2008/2009/2010

Computer Information Systems Department
King Abdullah II School for Information Technology
The University of Jordan

Curriculum for B.Sc. In Computer Information Systems2005/2006

The Academic Degree: B.Sc. in Computer Information Systems

A. Contents:

The curriculum for the department of Computer Information Systems consists of (132) credit hours as follows:

Sequence	***Requirement type***	***Credit Hours***
1	*University Requirements*	*27*
2	*Faculty Requirements*	*36*
3	*Specialization Requirements*	*69*
Total		*132*

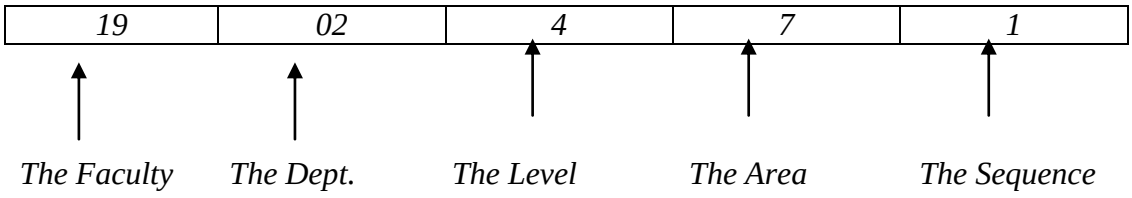
B. ***Department Codes****:*

Code	***Department***
1	*Computer Science (CS)*
2	*Computer Information Systems (CIS)*
3	*Business Information Systems (BIS)*

C. Area Codes:*

Area Code	***Specialization***	***Area Code***	***Specialization***
0	*General*	*5*	*Applications*
1	*Languages*	*6*	*Disrtributed System And Data Communicatios*
2	*Information Systems And Their Managment*	*7*	*Sytem Devlopment*
3	*Hardware And Based Erect*	*8*	*Specialized Topics*
4	*Theoritical Erect*	*9*	*Special Topics And Project*

** Meaning of Course Code:*



Example: 1902471 Software Engineering

1- University Requirements: (27) Credit Hours as follows:

A- Obligatory Courses (21): Credit Hours as follows:

Course Code	*Course Name*	*Credit Hours*
1500100	Military Sciences	3
1501101	Communication Skills / Arabic 1	3
1501102	Communication Skills / Arabic 2	3
1502101	Communication Skills / English 1	3
1502102	Communication Skills / English 2	3
1700100	National Education	3
1902100	Computer Skills-1	3

B- Elective courses: (6): Credit Hours as follows:

Course Code	*Course Name*	*Credit Hours*
0302100	Science And Society	3
0305100	Environment	3
0401100	Islamic Culture	3
0402100	Islamic Systems	3
0600100	Agriculture In Jordan	3
0601100	Home Agriculture	3
0603100	Human Nutrotion	3
0803100	Introduction To Libraries And Information Science	3
0905100	Principles In General Safety	3
1000100	Democracy And Human Rights	3
1132100	Sport And Health	3
1601100	Principles Of Management	3
1701102	Knowledge Theory	3
1702101	Islamic Civilization	3
1704100	Introduction To Sociology	3
1731100	Logic And Critic Thinking	3
1733100	Jordan Monuments	3
1736100	Principles Of Psychology	3

2- Faculty Requirements (36): Credit Hours

A- Obligatory Courses (36): Credit Hours as follows:

Course No.	*Course Name*	*Theoretical*	*Practical*	*Credit Hours*	*Pre Required*
0301101	Calculus – 1	3	-	3	-
0301102	Calculus –2	3	-	3	0301101
0301131	Principles Of Statistics	3	-	3	-
0907231	Digital Logic	3	-	3	1902100
1901101	Discrete Mathematics	3	-	3	-
1901102	Computer Skills-2 (C++)	3	-	3	1902100
1901215	Advanced Programming	2	2	3	1901102
1901231	Data Structures	3	-	3	1901215
1902201	Interpersonal Communication	3	-	3	1903101
1903101	Fundamentals Of Information Technology	3	-	3	-
1903121	Web Application Development-1	2	2	3	1903101
1903232	Management Information System	3	-	3	1903101

B- Elective courses: None

3- Specialization Requirements: (69) Credit Hours as follows:

A. Obligatory Courses: (51) Credit Hours as follows:

Course No.	Course Name	Week Hours		Credit Hours	Pre required
		Theoretical	Practical		
1901241	Theory of Computation	3	-	3	1901101
1901341	Algorithms Theory	3	-	3	1901231
1901359	Computer Graphics	3	-	3	1901231
1901361	Computer Networks-1	3	-	3	1901231
1901473	Operating System	3	-	3	1901231 Or 0907335
1902211	Object Oriented Programming -1	3	-	3	1902100
1902212	Object Oriented Programming -2	3	-	3	1902211
1902321	Database Systems	3	-	3	1901231
1902322	Information Systems Security	3	-	3	1902231
1902341	Artificial Intelligence	3	-	3	1901231
1902351	Multimedia	3	-	3	1902212
1902353	Human Computer Interaction	3	-	3	1901359
1902451	Geographical Information Systems	3	-	3	1901359
1902471	Software Engineering	3	-	3	1902321
1902475	System Analysis	3	-	3	1902321
1902495	Project	3	-	3	Department Approval
1902498	Training	6 weeks			Department Approval
1903352	Web Publishing	3	-	3	1903121

b) Elective courses: the student must select 18 hours of the following list:

Course No.	Course Name	Week Hours		Credit Hours	Pre required
		Theoretical	Practical		
1901352	Modeling And Simulation	3	-	3	1901231
1901356	Patterns Recognition	3	-	3	1901231
1902101	Visual Programming	3	-	3	1902100
1902355	Computer Assisted Learning	3	-	3	1902212
1902425	Distributed Databases	3	-	3	1902321
1902442	Machine Learining	3	-	3	1901231
1902445	Natuaral Language Processing	3	-	3	1902341
1902452	Virtual Reality	3	-	3	1902351
1902455	Image Processing	3	-	3	1901359
1902456	Expert Systems And Neural Networks	3	-	3	1902341
1902457	Database Languages And Tools	3	-	3	1902321
1902458	Certified Software	3	-	3	Department Approval
1902477	Object Oriented Design	3	-	3	1902471
1902494	Special Topics	3	-	3	Department Approval
1903332	Decision Support Systems	3	-	3	1903232
1903345	Computer Ethics	3	-	3	1903101
1903353	Web Application Development-2	3	-	3	1903121
1903481	Quality Management	3	-	3	1902321 & 0301131

Courses Offered by CIS Department

Course No.	Course Name	Week Hours		Credit Hours	Pre required
		Theoretical	Practical		
1902100	Computer Skills-1	3	-	3	-
1902101	Visual Programming	3	-	3	1902100
1902102	Computer Skills-2/ (Humanities and Clinical)	3	-	3	1902100
1902201	Interpersonal Communication	3	-	3	1903101
1902211	Object Oriented Programming -1	3	-	3	1902100
1902212	Object Oriented Programming -2	3	-	3	1902211
1902321	Database Systems	3	-	3	1901231
1902322	Information Systems Security	3	-	3	1902231
1902341	Artificial Intelligence	3	-	3	1901231
1902351	Multimedia	3	-	3	1902212
1902353	Human Computer Interaction	3	-	3	1901359
1902355	Computer Assisted Learning	3	-	3	1902212
1902425	Distributed Database Systems	3	-	3	1902321
1902442	Machine Learining	3	-	3	1901231
1902445	Natuaral Language Processing	3	-	3	1902341
1902451	Geographical Information Systems	3	-	3	1901359
1902452	Virtual Reality	3	-	3	1902351
1902455	Image Processing	3	-	3	1901359
1902456	Expert Systems And Neural Networks	3	-	3	1902341
1902457	Database Languages And Tools	3	-	3	1902321
1902458	Certified Software	3	-	3	Departmen t Approval
1902471	Software Engineering	3	-	3	1902321
1902475	System Analysis	3	-	3	1902321
1902477	Object Oriented Design	3	-	3	1902471
1902494	Special Topics	3	-	3	Departmen t Approval
1902495	Project	3	-	3	Departmen t Approval
1902498	Training	6 Weeks		0	Departmen t Approval

Supervising Plan

First Year

First Semester			***Second Semester***		
Course No.	**Course Name**	**Credit Hours**	**Course No.**	**Course Name**	**Credit Hours**
0301101	Calculus-1	3	0301102	Calculus-2	3
0301131	Principles Of Statistics	3	1901102	Computer Skills-2 (C++)	3
1903101	Fundamentals Of Information Technology	3	1903151	Web Applications Development 1	3
	Univ. Req.	3	1901101	Discrete Mathematics	3
	Univ. Req.	3		Univ. Req.	3
				Univ. Req.	3
		15			18

Second Year

First Semester			**Second Semester**		
Course No.	**Course Name**	**Credit Hours**	**Course No.**	**Course Name**	**Credit Hours**
0907231	Digital Logic	3	1901231	Data Structures	3
1901115	Advance Programming	3	1902201	Interpersonal Communication	3
1902211	Object Oriented Programming -1	3	1902212	Object Oriented Programming 2	3
1903211	Management Information System	3		Optional.	3
1901241	Theory of Computation	3		Uni. Req.	3
	Uni. Req	3			
		18			15

Third Year

First Semester			**Second Semester**		
Course No.	**Course Name**	**Credit Hours**	**Course No.**	**Course Name**	**Credit Hours**
1901361	Computer networks -1	3	1901341	algorithms	3
1902331	Database Systems	3	1901359	Computer graphics	3
1902341	Artificial Intelligence	3	1902322	Information system security	3
1902351	Multimedia	3	1903352	Web publishing	3
1902353	Human computer interaction	3		Optional	3
	Univ. Req.	3		Optional	3
		18			18

Fourth Year

First Semester			**Second Semester**		
Course No.	**Course Name**	**Credit Hours**	**Course No.**	**Course Name**	**Credit Hours**
1901473	Operating system	3	1902451	Geographic information system	3
1902475	System analysis	3	1902471	Software engineering	3
	Optional	3	1902495	Project	3
	Optional	3		Optional	3
	Uni. Req.	3		Uni. Req.	3
		15			15

Computer Information Systems
Courses Description

1902100 Computer Skills – 1: ***(Prerequisite none)***
An introduction to Computing and Information Technology. Topics covered include the basic Structure of digital computer systems, microcomputers, operating systems. Application software, database technology, data communication and networks, and the Internet. Hands-on learning using Windows, MS-office and the Internet. Weekly practice in the lab.

1902101 Visual Programming: ***(Prerequisite 1902100)***
Introduction to Visual Basic and Visual Studio environment: Controls, components, wizards; Language constructs and structures: Variables, assignment, arithmetic, selection, repetition, arrays, functions; Advanced controls: Frames, labels, Boxes and others; MDI models; Vbasic DB: Data Report, data designer, data form, data object, queries, intellilist; Classes; ActiveX: Encapsulation, relationships, interfaces, automation, tools; API Applications: windows API, keyboard, mouse, display; Applications. Weekly practice in the lab.

1902102 Computer Skills-2 (Humanities and medicals): ***(Prerequisite 1902100)***
Solving Problems using the computer: Variables, Algorithms and its representation, Data: types and definitions. Advanced applications using software packages such as: MS Word: templates, comparing documents, master, Table of contents, Index, inserting, mailing merge, macros, MS Excel: Charts, Functions, sorting and filtering, Solver, Macros, MS Access: Tables, relations, forms, queries, reports, import and export files and data, macros; introduction to the Web applications. Small Projects and applications. Weekly practice in the lab.

1902201 Interpersonal Communication: ***(Prerequisite: 1903101)***
Technical definition, development documentation, system definition and specification –proposals, program reports, feasibility reports, instructions and manuals, project reports, research reports, resumes and interviews, team meeting reports, presentation and briefings, abstracts and summaries . Weekly practice in the lab.

1902211 Object Oriented Programming – 1: ***(Prerequisite 1902100)***
Object-Oriented (OO) Programming Environment; OO Building Blocks; Input/Output; Loops; Decisions; Functions; Arrays and Strings; Data structures; Encapsulation; Advanced variables; Object Oriented Programming; Useful OO features; Classes and objects; Inheritance; Polymorphism; Exceptions handling; Threads; Files; Writing programs in JAVA languages. Weekly practice in the lab.

1902212 Object Oriented Programming – 2: ***(Prerequisite 1902211)***
Strings and string tokenization, simple and advance graphical user interface, integrated visual environment: Project, libraries, multimedia: images, animation, audio anr video. Java database connectivity and ODBCs. Servlets. Weekly practice in the lab.

1902321 Database Systems: ***(Prerequisite 1901231)***
Data Base (DB) Environment; DBMS architecture; Data modeling: Conceptual model, Entity relationship model (ERM), Extended ERM, Object Modeling Technique (OMT); Relational DBs; Data Base design; Data Base language: Structured Query Language (SQL); Views; Data Dictionary; Normalization process: 1NF, 2NF, 3NF; DB Integrity; DB Security; Modern DBMSs: Object-Oriented DBMSs; Physical Data Base design; Centralized and distributed Database systems; Case study. Weekly practice in the lab.

1902322 Information Systems Security: ***(Prerequisite 1901231)***

Identify a range of methods, techniques and current issues of security and privacy problems associated with the use of CISs; Security models: Take-Grant model, Acton (Action-entity) model, wood model, bell-lapadula model, biba model, sea view model, and other models; Ways to minimize risks and losses; Apply the information security methods and management to the development and management of information system security within an organization; Encryption and decryption; Security controls: flow control, interface control, access control; Security packages; Trusted and secure DBMS; User Identification / Authentication; Applications. Weekly practice in the lab.

1902341 Artificial Intelligence: ***(Prerequisite 1901231)***

Introduction to AI and application; Exhaustive Search methods; Heuristic search Methods; First Order Logic for knowledge representation; Programming in PROLOG; Production rule systems; Principles of expert systems; Expert systems Programming in PROLOG; Knowledge Acquisition. Weekly practice in the lab.

1902351 Multimedia: ***(Prerequisite 1902212)***

Introduction: basic concepts of multimedia; Media types; Concepts and techniques; Multimedia information servers; Design support; Production and evaluation of multimedia information servers; Software and hardware requirements; Image compression; Image database: Feature-based retrieval, content-based retrieval; Audio signal processing; Speech analysis; Music analysis and synthesizing; Teleconferencing and video compression; Animation; Virtual reality; Web publishing; Multimedia Programming: Composition mechanisms, metaphors; Synchronization: aspects of synchronization, techniques; Interaction; Case study. Weekly practice in the lab.

1902353 Human-Computer Interaction : ***(Prerequisite 1902341)***

Designing, building, and programming graphical user interfaces, Human-centered software evaluation, Human-centered software development, HCI aspects of multimedia systems and Web-based systems, these topics are intended as an introduction to human-computer interaction. Emphasis will be placed on understanding human behavior with interactive objects, knowing how to develop and evaluate interactive software using a human-centered approach, and general knowledge of HCI design issues with multiple types of interactive software. Weekly practice in the lab.

1902355 Computer Assisted Learning: ***(Prerequisite 1902212)***

Introduction to Computer use in teaching; Teaching Authoring Tools; Human computer interaction; Software and hardware requirements; Task analysis and design; Multimedia and task development; Internet in Education; Question answer design; Student computer interaction; Static and dynamic interaction; Computerized examination; Virtual teaching; Case Study. Weekly practice in the lab.

1902425 Distributed Databases: ***(Prerequisite 1902321)***

Distributed Database (DB) environment; Distributed Database (DDB) processing: Homogeneous distributed Database (DB) systems, heterogeneous distributed systems; Distributed (DB) design: Fragmentation, allocation, replication; Distributed query processing; Concurrency control: Serializability, locking-based algorithms, time stamp-based algorithms, optimistic algorithms, deadlock management; Reliability and recovery; Distributed data servers; Distributed parallel data servers; Integrity and Security issues in distributed systems; Applications. Weekly practice in the lab.

1902442 Machine Learning ***(Prerequisite 1901231)***

Introduction and learning bayesian learning, decision tree learning; learning sets of rules, genetic algorithms, analytical learning; reinforcement learning; applications. Weekly practice in the lab.

1902445 Natural Languages Processing: ***(Prerequisite 1902341)***
Origins of Natural Language Processing (NLP); Language structure representation; The role of knowledge; Knowledge representation; Parsing techniques; Finite-state techniques; Recursive and augmented transition networks; Language ambiguity; Well-Formed constructs; Features and the lexicon; Language semantics; Applications. Weekly practice in the lab.

1902451 Geographical Information Systems: ***(Prerequisite 1901359)***
Geographical Information Systems (GIS) and information age; Geographic data in the computer; What does GIS do: Spatial data; Raster and Vector Data; Topology and spatial relationships; Data entry and data acquisition; Database and inventory operations; Basic analysis (overall map algebra); Advanced analysis (proximity and terrain analysis); Site suitability and models; Data issues and problems; GIS software systems; Applications. Weekly practice in the lab.

1902452 Virtual Reality: ***(Prerequisite 1902351)***
Introduction to virtual reality (VR); software and hardware requirements; Human computer interaction ; VR in education; VR in science; Imager displays and simulation software; Display methods; Auditory, Haptic, Locomotory; Position tracking and mapping; Animation and rendering techniques; Digital illusion; Move production: Frame set-up, Frame elements, Frame speed, Frame sequence organization, Frame control, move play and playback; VR Modeling and Programming; Design of VR environment; case development; Applications . Weekly practice in the lab.

1902455 Image Processing: ***(Prerequisite 1902359)***
Introduction, Data structure for image analysis; Shape representation; Image preprocessing; Image formats; Recognition; Feature extraction; Processing primitives; Modeling (e.g. quad applications); Local and global operations; Clustering: hierarchical and non-hierarchical methods, clustering using neural networks and genetic algorithms; Classifications; Nearest neighbors; Neural nets; Image enhancement; Segmentation application and measurement; Image storage and retrieval; Applications. Weekly practice in the lab.

1902456 Expert Systems and Neural Networks: ***(Prerequisite 1902341)***
Knowledge representation; Uncertainty Management; Inferences and Explanation; Knowledge Acquisition and Validation; Tools for Expert Systems; Neural Computational Models, Neural Networks Learning Training; Knowledge-based Neural Networks; Rule Generation from Neural Networks. Weekly practice in the lab.

1902457 Database Languages and Tools: ***(Prerequisite 1902321)***
A selected DB Language such as Oracle or Access; Additional support tools for business applications: DDL and DML commands, Forms design, triggers, Case study. Weekly practice in the lab.

1902458 Certified Software: ***(Department Approval)***
This course offers a variety of intensive certificate programs, which help the student to be prepared to apply for a certificate according to the offered training. The course will be taught by qualified and certified instructors in different fields. The offered programs include: Advanced oracle PL/SQL program, Practices in Web Design program, Java Developer program, .Net Developer program, and other microsoft software. Weekly practice in the lab.

1902471 Software Engineering: ***(Prerequisite 1902321)***
Software engineering processing methods; Software life cycle; Computer-based system engineering; Software project Management; Requirements and Specification: Requirement engineering, requirement analysis, models, prototyping, formal and algebraic specification; Software design: Architectural design, object-oriented, function-oriented, real-time and user interface design; Reliability; Maintenance; Portability; Documentation; Re-engineering and reverse-engineering; Case study. Weekly practice in the lab.

1902475 System Analysis: ***(Prerequisite 1902321)***

Introduction to systems development; Development life cycle; System Development feasibility; Development of fact finding methods; Context diagram; Data flow diagram; Decision tables and trees; Data dictionary; Installation; Training; Development Tools: Documentation, Maintenance, Conceptual design, DB design, Reverse engineering, Graphical user interface, Systems life cycle, System conversion, System charts and flow of control; Case study. Weekly practice in the lab.

1902477 Object Oriented Design: ***(Prerequisite 1902477)***

Understanding the (object-oriented) software development process; object-oriented paradigm, with all the support such as object-oriented languages, a formal presentation of the design, Object-oriented design concepts, features and problems of object-oriented design, evolution the object-oriented model, foundations and elements of the object-oriented model, classes and objects, relationships among classes, relationships among objects, approaches to identifying classes and objects, object-oriented design methodologies, standardized representation for design: the Unified Modelling Language (UML), and design patterns for high-level design re-use. Weekly practice in the lab.

1902494 Special Topics ***(Department Approval)***

Selected Topics in advanced areas of Computer Information Systems, Report and Documentation required. Weekly practice in the lab.

1902495 Project: ***(Department Approval)***

Project includes theoretical and practical aspects in Computer Information Systems, related to the currrent problems and applications in IT, Research oriented, technical report, and presentation. Weekly practice in the lab.

1902498 Training: ***(Department Approval)***

A student is required to ◌training in one of organisations for not less than 6 weeks, presents a report from the organisation to describe the effectiveness of the practice according to the training regulations of Dean's council for KASIT Departments. Or have a specialized certificate in one of technological information subjects that considered and published from a certified organiaztion.

1901101 Discrete Mathematics: ***(Prerequisite none)***

Logical and Symbolic statements: true values of a statement; Connection tools, Truth table, Equivalent; Counting methods; Methods of proof: induction and recursion; Sets and operations; Languages; Relations: directed graph, characteristics of relations; Functions: characteristics, domain and range; Matrices: algebra of matrices, simple operations, determinants, Cramer's rule.

1901102 Computer Skills-2 (C++): ***(Prerequisite 1902100)***

Fundamental concepts of programming using C++; Basic structures of programming tools: variable names; Data types; Control structures; Arrays; Functions; Pointers; Introduction to classes and objects; Inheritance; Applications using C++. Weekly practice in the lab.

1901215 Advanced Programming: ***(Prerequisite 1901102)***

A deeper look to C++ programming. Advanced topics include pointers and strings memory management (dynamic memory allocation), object oriented design, classes and data abstraction, operator overloading, inheritance, virtual functions and polymorphism, and templates. Other topics are, exception handling, file processing, standard templates library, detailed bits and strings operations, and the pre-processor, I/O Streams.

1901231 Data Structures: ***(Prerequisite 1901102)***

Data type and structures; Abstract data types and encapsulation; Stacks; Queues; Recursion; Linked Lists; Binary trees; General trees; File organization: sequential and indexed files; Graphs: representation, traversing, shortest path; Sorting: exchange, insertion, quick sort, heap and others; Searching. Weekly practice in the lab.

1901241 Theory of Computation: ***(Prerequisite 1901101)***

Sets; Relations; Closure and Languages; Finite automata: deterministic and nondeterministic; Closure and pumping lemma; Regular languages and expressions; Context-free grammar: regular languages and context-free languages, pushdown automata, closure, determinism and parsing, LL(1) grammar; Turing machines, combining Turing machines and machine schemas, examples; Introduction to P and NP classes.

1901341 Theory of Algorithms: ***(Prerequisite 1901231)***

Definition of an algorithm, algorithm design and techniques, algorithm analysis. Concept of basic operation, concept of worst, best, and average case analysis, complexity analysis: big O, Omega and theta notations. Recurrence equations and recursive algorithms. Concept of algorithm correctness. Basic searching and sorting algorithms, hashing. Concepts of NP-completeness, Classical NP-complete problems. Weekly practice in the lab.

1901359 Computer Graphics ***(Prerequisite 1901231)***

introduction to graphics systems: screens, input / output units, application coordinate systems, output primitives: points, lines, polygons, circles, ellipses, area filling, attributes of output primitives, colors, patterns, aliases, transformation: translation, scaling, rotation, reflection, clipping: windows and view ports, line clipping, area clipping, text clipping, segments: structures, creating, updating, deleting,. Interactive graphics systems: windows, icons, menus, virtual reality, 3D graphics: representation, transformation, computer animation, applications. Weekly practice in the lab.

1901361 Computer Networks-1: ***(Prerequisite 1901231)***

This course explores key concepts and essential technologies of computer networks and broad range of topics in networking, including: General overview: Networks applications, Network classifications and topologies, Network layers, Channel performance measures, transmission media, Communication Network Protocols and architecture; Data link layer: framing, error detection and correction, CSMA/CD, LAN IEEE standards; Network layer: IP service model, IP Addressing, subnetting, Host configuration DHCP, ARP Protocol, ICMP protocol; Transport layer: UDP protocol, TCP protocol, TCP reliable transfer and sliding window, TCP flow and congestion control; Application layer: DNS protocol, NAT protocol, HTTP protocol, persistent and non-persistent HTTP connection

1901473 Operating Systems: ***(Prerequisite 1901231 or 0907335)***

Definition and role of the operating systems; history of operating systems and development; functionality and structuring methods of a typical operating system. Concepts of a process vs. the concept of a thread; scheduling and dispatching and context switching; concurrent execution: the "mutual exclusion" problem and some solutions. Deadlocks: causes, conditions, methods for resolution. Memory management; virtual memory management. I/O management; files: data, metadata, operations, buffering, sequential, nonsequential. Weekly practice in the lab.

1903101 Fundamentals Of Information Technology: ***(Prerequisite none)***

Information Technology components, computer hardware: memory, CPU, machine cycle. numbering system: decimal, binary, octal, hexadecimal, operations, data representation, cooding. communications and networks multimedia, E-business, system software and applications, information system: analysis and development, problem solving : algorithm, flowchart, pseudo code. Weekly practice in the lab.

1903121 Web Application Development-1: (Prerequisite 1903101)

The course introduces students to the tools and techniques used for building Web-based applications. Students will gain an understanding of the fundamental workings of the Web. Students will be taught how to develop web applications using client-side tools such as HTML and Java Script and server-side tools such as ASP. Weekly practice in the lab.

1903232 Management Information System (Prerequisite 1903101)

Fundamentals of Information Systems; Types and levels of MIS; IT in Business; Business Application of Information Technology; Managing Information Technology: global management, planning and information change; Security and protection issues. Weekly practice in the lab.

1903332 Decision Support (Prerequisite 1903232)

Definition; DSS Framework; Modeling and model management; Modeling process; Characteristics and capabilities of DSS; Component of DSS; DSS Hardware and Software; Constructing a DSS; DSS development tools; Group DSS; Executive DSS; Hybrid DSS; Distributed DSS; case study. Weekly practice in the lab.

1903345 Computer Ethics: (Prerequisite 1903101)

Identifying ethical problems; Reaching decisions; Legal constraints; professional organization and codes of conduct; Systems management and hacking; Ethical, social, political, legal and economic aspects of the application of computers; Customer rights; Copy rights; Ownership; Protocols and agreements; Security and ethical issues; Viruses detection; Protection and ethical issues; Internet and ethical implications; Computer crimes. Weekly practice in the lab.

1903352 Web Publishing: (Prerequisite 1903121)

Introduction to concepts and techniques for WWW information services; WWW design support; Production and evaluation of WWW information services; Developing strategies for locating resources; HTML (Hyper Text Markup Language); Publishing information; Web Page Design (Microsoft Front Page); Publishing HTML pages using HTML Tags and HTML Tools; Java Script; Java Applets and XML. Weekly practice in the lab.

1903353 Web Application Development-2: (Prerequisite 1903121)

Application of server-side scripting programming, Implementation of Web servers, SQL & MySQL, Database Interfaces (DBIs), Advanced ActiveX Data Objects (ADO.NET), Active Server Pages.NET (ASP.NET), Implementing Active Server Pages.NET using XML (Extensible Markup language), programming using Perl, Common Gateway Interface (CGI), PHP, Python, Java Servelets and JSP. Weekly practice in lab.

1903481 Quality Management: (Prerequisite 1902321 & 0301131)

Introduction; Views of quality; Profiles; Management and improvement; Quality management system; Human quality culture; The problem of user requirements ; Assurance; The ISO9001-2000 series: Standards, generic, guidance; Capability maturity models; individual levels of the CMM; Human resource quality; Training; Supplier quality; Quality assessment.