Kingdom of Saudi Arabia
Ministry of Higher Education
Al Imam Mohammad Ibn Saud Islamic University
College of Computer and Information Sciences
Information Systems Department

Information Systems Department Undergraduate Handbook

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Table of Contents

Head Message 1
Introduction 2
Vision 3
Mission 3
Goals 3
Program Educational Objectives 3
Students Admission 4
Students Outcomes 7
About the University 8
Resources and Student Support Services 10
Research and Funding 11
Career Opportunities 12
Curriculum 12
- General Education 13
- Math and Basic Sciences 13
- Business Topics 13
- Core Computing Topics 14
- Core Information Systems Topics 14
- Senior Design Experience 15
- Practical Training 15

Study Plan 16
Course Description 19
- IS200: Introduction to Information Systems 19
- IS394: Requirement Engineering 19
- IS320: Introduction to Database 19
- IS309: Systems Analysis and Design 19
- IS371: Database Management System 20
- IS332: Decision Support System 20
- IS203: Web Programming 20
- IS391: Seminar 21
- IS433: Information Systems Security 21
- IS441: Information Systems Project Management 21
- IS497: Senior Information Systems Project Phase I 21
- IS400: Practical Training 22
- IS414: E-Business Strategy, Architecture and Design 22
- IS498: Senior Information Systems Project Phase II 22
- IS395 - 7: Selected Topics in Information Systems I, II & III 22

Head Message

Welcome to the department of Information Systems in the College of Computer and Information Sciences at Al Imam Mohammad Ibn Saud Islamic University.

Here is the department booklet as a gateway to get knowledge about the department, its objectives, programs offered and its plans. Wish you all the best success.

Head of Information Systems Department

Introduction

In today's fast-paced business environment, organizations and businesses challenge in structuring their business processes and operations to meet vibrant global competition. Nowadays, goods and services are increasingly managed and supplied by world-wide networks of firms, utilizing modern information technology to share information and coordinate activities. In this information-centric environment, organizations cannot gain competitive advantages just by amassing physical capital: they must make investments in systems and technologies to maximize the value of their information assets. Organizations that do not possess these capabilities will fall behind in the highly-competitive and quickly-changing business environment.

The establishment of the department of Information Systems meets the needs of the growing community of computer technologies, and to participate effectively in the development plans of our country. It was established in 1997/1998 under the faculty of Social Sciences. Due to the increase in number of students, it was transferred along with the department of Computer Science into a newly established College of Computer and Information Sciences in 2001/2002. The department grew rapidly since then and became one of the largest departments in the university in terms of the number of accommodated undergraduate students and one of the leading Information Systems department in the country.

The department of Information Systems has a team of highly qualified and professional faculty members with impressive academic and industrial credentials. The faculty members are committed to provide excellent teaching and personal advisory services to the students. In addition, they are making significant contributions to the professional and research communities with high-quality consultation and research works.

We are proud to welcome students with a diverse background to our creatively designed courses. The department offers one undergraduate and one graduate degree program for the students to enjoy research-led and practices driven teaching environment. Whatever your career objective, you will find that knowledge of information systems will increasingly become a prerequisite for holding a decision-making position within an organization. Our programs provide the foundation to success in these careers.

Vision

The vision of the Information Systems Department is to be regionally recognized as a department of choice for students and organizations seeking academic excellence and professional services.

Mission

The mission of the Information Systems Department is to pursue the department vision by offering and maintaining best educational programs derived from world-class academic establishments. It is committed to discover, teach and disseminate skills and renowned knowledge concerning the design of intelligent interactive information systems and to leverage the power of information technology to provide solutions in organizational contexts.

Goals

1. Provide state-of-the-art industry relevant education and prepare well skilled graduates capable to fulfill the demand for information system professionals within the region
2. Inculcate the philosophy of life-long learning in the students to encourage attainment of higher qualifications and undertake research activities
3. Foster an educational environment to nurture socially responsible and matured future professionals who are abiding by the professional and ethical standards in conformance with Islamic beliefs and practices, capable of contributing positively to the Saudi society.

Program Educational Objectives

The information systems program has the following program educational objectives that are expected from graduates of IS program:

1. Become practicing professionals with the fortitude to attain managerial and executive positions in industry or government.
2. Pursue graduate studies with vigor and zeal, and attain a higher-level graduate degree in information systems or related fields at respectable institutions of higher learning.
3. Become socially responsible, mature, and well-prepared leaders capable of assuming positions of responsibilities affecting and contributing to the Saudi society positively and productively.

Students Admission

Student enrollment to IS programs passes through three stages:

- University admission
- Preparatory year admission
- CCIS admission

University admission

Based on the implementation rules of Article 2 of the SERUS, the CCIS council provides the admission and registration deanship with the suggested number of the new admitted students approved by the university council.

Students satisfying the following requirements as stated in Article 3 of the SERUS must submit their official documents to the admission and registration deanship on request:

a. The student should hold a secondary school certificate or its equivalent from inside the kingdom or outside.
b. The student should have received his/her secondary school certificate or its equivalent since five years or less. The university council may make exception if compelling reasons are available.
c. The student should be of good conduct.
d. The student should pass any test/ interview appointed by the university.
e. The student should be medically fit.
f. The student should get a study approval in case the student works for a governmental or private hand.
g. The student should meet any other conditions specified by the university council.
h. Students satisfying the requirements shall submit their official documents to the admission and registration deanship when requested.
i. The university should not expel a student from another university for disciplinary or educational reasons. If it appears after a student's acceptance that the student had a previous dismissal for disciplinary reasons, the university shall deem the registration cancelled from the date of acceptance of the student transfer to the university. The university rector handles exceptions if compelling reasons are available.
j. CCIS may add extra requirements for acceptance. The university council should approve these extra requirements.

Preparatory year admission

Students receive admission to the applied science track that will prepare students for the CCIS, the college of engineering, and the college of science programs.

A student has to satisfy the following requirements for admission to the applied science track of the preparatory year:

a. The student should hold a secondary school certificate with a minimum of 85%.

b. The compound grade should not be less than 80%, calculated as follows: 40% of secondary school, 30% of general aptitude test (Qudrat), and 30% of cumulative test.
c. There is an exception in (b):

   The compound grade for the female students is calculated as follows: 60% of secondary school, 20% of general aptitude test (Qudrat), and 20% of cumulative test. This exception because the cumulative test is just been implemented for female. This will not affect the male seats because they are not competing with each other and they have their own separate seats. This exception takes place for two years

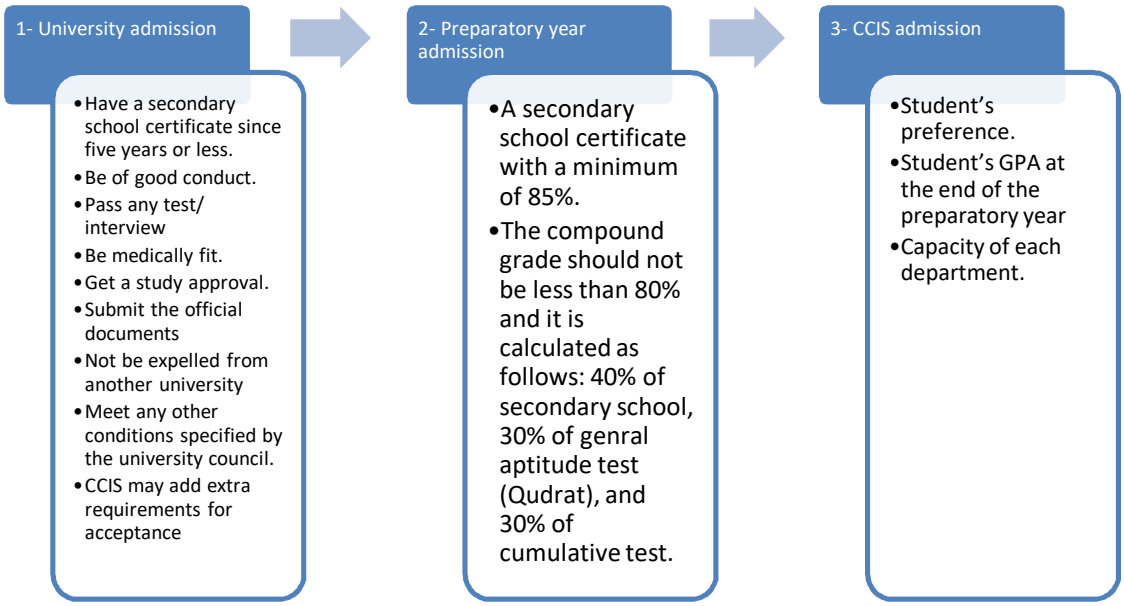
The applied sciences track within the preparatory year aims to develop the skills of students in the areas of English language and basic sciences such as physics, mathematics, and information technology. This process contributes towards the improvement of a student's language proficiency and competency; it also develops their analytical and research skills that will enable them to succeed in their education. In the applied sciences track, students must complete all courses within a maximum of three semesters. Students' acceptance on the applied sciences track does not imply full-time enrollment to the CCIS's programs.

CCIS admission

Students passing the applied science track qualify for admission to the CCIS's programs based on the following criteria:

a. Student's preference
b. Student's GPA at the end of the preparatory year
c. Capacity of each department within CCIS

Students selected to pursue their studies in the information systems program are among the best students in the preparatory year; the information systems program usually receives the first choices of outstanding students. Once admitted to join (See following figure) the information systems program, students must complete the program's eight levels over four years.



Student Admission Stages

If number of students applying for admission in IS program are more than the available capacity, then the selection will be done based on the CGPA in foundation year. The students with the highest CGPA in the foundation year will be given priority.

Students Outcomes

Upon successful completion of all program requirements, graduates will be able to

1. Recognize the concepts of computing and mathematics appropriate to the discipline.
2. Comprehend professional, ethical, legal, security and social issues and responsibility
3. Comprehend the processes that support the delivery and management of Information Systems within a specific application environment
4. Interpret the system requirements based on analysis, identification of computing requirements for problem scenario.
5. Develop a computer-based system, process, component or program to meet desired needs after design, implementation and evaluation.
6. Analyze the local and global impact of computing on individuals, organizations and society.
7. Apply current techniques, skills, and tools necessary for computing practices.
8. Work effectively as teams to accomplish a common goal.
9. Recognize the need for and an ability to engage in continuous professional development
10. Communicate effectively with a range of stakeholders using various communication channels.

About the University

Al Imam Mohammad Ibn Saud Islamic University in Riyadh, Saudi Arabia, was founded in 1953. The University has greatly developed over the years. Earlier, this university comprised mainly students residing in Riyadh itself. But gradually people from different places outside Riyadh enrolled themselves at this university. In line with its expanding student body, the University has set up many colleges outside Riyadh.

Currently, the University has more than 100,000 students and more than 3,000 faculty members. It is organized into 11 colleges in Riyadh: College of Sharia, College of Fundamentals of Religion, College of Arabic Language, College of Social Sciences, College of Communication and Media, College of Languages and Translation, College of Computer and Information Sciences, College of Economics and Administrative Sciences, College of Sciences, College of Engineering and College of Medicine. The University also has three institutes in Riyadh; one for Jurisdiction, one for teaching Arabic language for non-Arabic native speakers and the last one is the Higher Institute for Preaching. Furthermore, it has some institutes abroad for teaching Islamic and Arabic knowledge in Ras Al-Khaima (UAE), Djibouti, Indonesia, and Japan and sixty-two scientific institutes kingdom-wide.

The main campus in Riyadh has an excellent location on the Airport road. The area is bustling with the main facilities like: bookstores, hotels, medical centers and malls. The colleges and various administrative offices within the campus are well connected with a modern road network.

The Information Systems department is one of the departments within the College of Computer and Information Sciences at Al Imam Mohammad Ibn Saud Islamic University.

For more information, you can visit the college website.

Resources and Student Support Services

The college has many classrooms equipped with the latest educational equipment such as: computers, smart boards, visual communication device (POLYCOM) and data show devices. In addition, there are a number of state-of-the-art computer labs hosting many commercial software tools and systems which provide students with modern software development environments. All the labs have high-speed Internet access and adequate printing facilities: Specifically, the lab facilities are:

- Windows Labs: The College has nine labs with Windows operating system which have a wide array of essential software tools for the students, such as: Office 2007 Professional, SharePoint, Visual studio 2008 Professional, Adobe Reader, Cygwin, JCreator Pro, NetBeans, Bloodshed Dev-C++, Wamp Server, ArcGIS, Odoo, Rational Rose, Oracle, etc.
- Linux Labs: There are four labs with Linux operating system, having the necessary software that students require, such as : ubuntu, eclipse, gcc, Open Office, etc.
- Digital Lab is dedicated to the practical application of digital circuits.
- Network Lab: It is dedicated to practical training for computer network courses.

Additionally, any student in the college can benefit from the following services:

- Students Training Center: It provides number of technical courses with highly qualified trainers, like: ASP.NET, PHP, MySQL, C#, etc.

- Huge electronic library with thousands of e-books and scientific papers. Any student or instructor can access it through the college website.
- Blackboard (Bb): It is a system for education management and follow-up of students and monitoring the efficiency of the educational process in the educational institution. The system provides great opportunities for students to communicate with the course instructor outside the lecture room, anywhere and at any time and provides a variety of tools to view the content of scientific materials.

- An official e-mail on the College domain "@imamu.edu.sa".

Microsoft®
Outlook Live

- A well capable Technical Support Unit that provides all the required maintenance services and technical supports.

Research and Funding

Scientific research is extremely important in achieving academic excellence and accelerating national development. In line with its mission and objectives, the University has established several centers to advance research and development activities in the areas of science and technology and increase the visibility of the university internationally. Among those centers, Research and Scientific Consulting Center in the College of Computer and information Sciences, established in 14-05-1426 H aims to achieve the following:

- Contribute to the preparation of strategic plans of scientific research at the university.
- Provide ways to support researchers in the College and develop their potential.
- Facilitate cooperation and integration in the field of scientific research among the academic departments of the College.
- Facilitate the faculty members of the College to communicate with the Deanship of Scientific Research.
- Achieve integration in the field of scientific research among various research units within the University.

The Department's research broadly covers the areas of information systems analysis and design, organizational informatics, enterprise architecture, IT governance, IT

service management, business intelligence, information security, interactive systems and knowledge management, etc. Students have opportunities to participate in cutting-edge research projects formulated by department faculty members and gain valuable experience in applying the techniques learned through the taught courses on real life problems.

Career Opportunities

All graduates of our academic program will have the knowledge and skills to be practitioners and innovators in the field of Information Systems. They will be able to apply computational thinking in the analysis, design and implementation of information systems solutions, whether working alone or as part of a team. Graduate from Information Systems program will have various career opportunities including the following:

- Analyst and information systems designer.
- Systems consultant.
- Information technology consultant.
- Information Security Officer.
- Web site designer
- Systems developer.
- Business developer.

Curriculum

Our degree curriculums are designed to reflect our commitment to research and practice-led teaching and to the progressive development of students' capacities as researchers as appropriate to their level of study. Each curriculum encompasses a diverse set of topics which are both academically stimulating and highly relevant to today's world.

The curriculum of the B.Sc. in Information Systems consists of 133 credit hours distributed as follows:

- General Education – 27 CH
- Math and Basic Sciences – 18 CH
- Business Topics – 8 CH
- Core Computing Topics – 30 CH
- Core Information Systems Topics:
  - Core Courses -43 CH
  - Senior Design Experience – 6 CH
  - Practical Training – 1 CH

General Education

Course Code	Course Title	Credit Hours	Prerequisites
ENG140	English I	3(2,2,0)	
QUR101	The Holy Quran I	1(1,0,0)	
ENG190	English Language II	3(2,2,0)	ENG140
IDE133	Monotheism	2(2,0,0)	
QUR151	The Holy Quran II	1(1,0,0)	
ENG208	Technical Writing	3(3,0,0)	ENG190
QUR201	The Holy Quran III	1(1,0,0)	
JR200	Islamic Jurisprudence	2(2,0,0)	
ARB104	Grammar	2(2,0,0)	
QUR251	The Holy Quran IV	1(1,0,0)	
QUR301	The Holy Quran V	1(1,0,0)	
HAD116	The Prophet Biography	2(2,0,0)	
COM207	Communication Skills	2(2,0,0)	
QUR351	The Holy Quran VI	1(1,0,0)	
QUR401	The Holy Quran VII	1(1,0,0)	
QUR451	The Holy Quran VIII	1(1,0,0)	
Total		**27 CH**	

Math and Basic Sciences

Course Code	Course Title	Credit Hours	Prerequisites
MATH113	Applied Calculus I	4(3,0,2)	
PH103	General Physics	3(2,2,0)	
MATH114	Applied Calculus II	4(3,0,2)	MATH113
MATH227	Linear Algebra & Differential Equations	4(3,0,2)	MATH113
STA 111	Introduction to Probability and Statistics	3(2,0,2)	MATH113
Total		**18 CH**	

Business Topics

Course Code	Course Title	Credit Hours	Prerequisites
BUS100	Introduction to Business Administration	3(3,0,0)	
ACC100	Principles of Accounting	3(3,0,0)	
ECO100	Principles of Economics	2(2,0,0)	
Total		**8 CH**	

Core Computing Topics

Course Code	Course Title	Credit Hours	Prerequisites
CS104	Discrete Structures	3(3,0,0)	
CS140	Computer Programming I	4(3,2,0)	
CS106	Digital Logic	3(2,2,0)	CS104
CS141	Computer Programming II	4(3,2,0)	CS140
CS224	Computer Organization	4(3,2,0)	CS106
CS242	Data Structures	4(3,2,0)	CS104,CS141
CS322	Operating Systems	4(4,0,0)	CS224,CS242
CS330	Computer Networks	4(4,0,0)	CS322
Total		**30 CH**	

Core Information Systems Topics

Course Code	Course Title	Credit Hours	Prerequisites
IS200	Introduction to Information Systems	3(3,0,0)	CS106,CS141
IS394	Requirement Engineering	3(3,0,0)	IS200
IS320	Introduction to Databases	3(3,0,0)	CS242
IS309	Systems Analysis and Design	4(4,0,0)	IS320,IS394
IS371	Database Management System	4(4,0,0)	IS320
IS332	Decision Support Systems	3(3,0,0)	IS309,STA111
IS203	Web Programming	3(2,0,0)	IS371
IS391	Seminar	1(1,0,0)	IS394
IS433	Information Systems Security	3(3,0,0)	CS330
IS441	Information Systems Project Management	3(3,0,0)	IS309
IS395	Selected topics in Information Systems I	3(3,0,0)	IS203
IS414	Electronic Business Strategy, Architecture and Design	4(4,0,0)	IS371
IS396	Selected Topics in Information Systems II	3(3,0,0)	IS395
IS397	Selected Topics in Information Systems III	3(3,0,0)	IS371
Total		**43 CH**	

Senior Design Experience

Course Code	Course Title	Credit Hours	Prerequisites
IS497	Senior Information Systems Project I	2(2,0,0)	IS309, IS371
IS498	Senior Information Systems Project II	4(0,0,0)	IS497
Total		**6 CH**	

Practical Training

Course Code	Course Title	Credit Hours	Prerequisites
IS400	Practical Training	1(1,0,0)	
Total		**1 CH**	

Study Plan

	Course Code	Course Name	Credit Hours	Lect.	Lab	Rec.	Prerequisites
Semester One	CS104	Discrete Structures	3	3	0	0	
	CS140	Computer Programming I	4	3	2	0	
	ENG140	English I	3	2	2	0	
	MATH113	Applied Calculus I	4	3	0	2	
	QUR101	The Holy Quran I	1	1	0	0	
	PH103	General Physics	3	2	2	0	
	Total		**18**	**22**			

	Course Code	Course Name	Credit Hours	Lect.	Lab	Rec.	Prerequisites
Semester Two	CS106	Digital Logic	3	2	2	0	CS104
	CS141	Computer Programming II	4	3	2	0	CS140
	MATH114	Applied Calculus II	4	3	0	2	MATH113
	ENG190	English Language II	3	2	2	0	ENG140
	IDE133	Monotheism	2	2	0	0	
	QUR151	The Holy Quran II	1	1	0	0	
			17	**21**			

	Course Code	Course Name	Credit Hours	Lect.	Lab	Rec	Prerequisites
Semester Three	CS224	Computer Organization	4	3	2	0	CS106
	CS242	Data Structures	4	3	2	0	CS 104 ,CS141
	MATH227	Linear Algebra & Differential Equations	4	3	0	2	MATH 113
	ENG208	Technical Writing	3	3	0	0	ENG190
	QUR201	The Holy Quran III	1	1	0	0	
	IS200	Introduction to Information Systems	3	3	0	0	CS 106 ,CS141
			19	**22**			

	Course Code	Course Name	Credit Hours	Let.	Lab	Rec	Prerequisites
Semester Four	IS394	Requirement Engineering	3	3	0	0	IS 200
	JR200	Islamic Jurisprudence	2	2	0	0	
	STA 111	Introduction to Probability and Statistics	3	2	0	2	MATH113
	IS320	Introduction to Databases	3	3	0	0	CS242
	ARB104	Grammar	2	2	0	0	
	QUR251	The Holy Quran IV	1	1	0	0	
			14	**15**			

	Course Code	Course Name	Credit Hours	Lect.	Lab	Rec	Prerequisites
Semester Five	IS309	Systems Analysis and Design	4	4	0	0	IS320, IS394
	IS371	Database Management System	4	4	0	0	IS320
	CS322	Operating Systems	4	4	0	0	CS242, CS224
	BUS100	Introduction to Business Administration	3	3	0	0	
	QUR301	The Holy Quran V	1	1	0	0	
	HAD116	The Prophet Biography	2	2	0	0	
			18	**18**			

	Course Code	Course Name	Credit Hours	Lect.	Lab	Rec	Prerequisites
Semester Six	CS330	Computer Networks	4	4	0	0	CS322
	IS332	Decision Support Systems	3	3	0	0	IS309, STA111
	IS203	Web Programming	3	2	2	0	IS371
	ACC100	Principles of Accounting	3	3	0	0	
	COM207	Communication Skills	2	2	0	0	
	IS391	Seminar	1	1	0	0	IS 394
	QUR351	The Holy Quran VI	1	1	0	0	
			17	**18**			

Semester Seven	Course Code	Course Name	Credit Hours	Lect.	lab	Rec	Prerequisites
	IS433	Information Systems Security	3	3	0	0	CS330
	IS441	Information Systems Project Management	3	3	0	0	IS309
	IS395	Selected Topics in Information Systems I	3	3	0	0	IS 203
	IS497	Senior Information Systems Project I	2	2	0	0	IS309, IS371
	QUR401	The Holy Quran VII	1	1	0	0	
	ECO100	Principles of Economics	2	2	0	0	
	IS400	Practical Training	1	0	0	0	
			15	**14**			

Semester Eight	Course Code	Course Name	Credit Hours	Lect.	Lab	Rec	Prerequisites
	IS414	Electronic Business Strategy, Architecture and Design	4	4	0	0	IS371
	IS396	Selected Topics in Information Systems II	3	3	0	0	IS395
	IS397	Selected Topics in Information Systems III	3	3	0	0	IS371
	IS498	Senior Information Systems Project II	4	0	0	0	IS497
	QUR451	The Holy Quran VIII	1	1	0	0	
			15	**11**			

Course Description

IS200: Introduction to Information Systems

The course will cover the general concepts, fundamentals and terminology of computer information systems as they are used to process information. The hardware, software, data, communications and people requirements of computerized information systems will receive extensive coverage, as will the pervasive influence of internet-based information processing. Career opportunities in Information Technology will also be covered.

IS394: Requirement Engineering

This course is essential comprehensive coverage of the fundamentals of requirements engineering. Requirements engineering deals with the variety of prerequisites that must be met by a software system within an organization in order for that system to produce stellar results. This course presents a disciplined approach to the engineering of high-quality requirements. It serves as a helpful introduction to the fundamental concepts and principles of requirements engineering, and offers a comprehensive review of the aim, scope, and role of requirements engineering as well as best practices and flaws to avoid. The course also focuses on the state- of-the- art techniques for domain analysis, requirements elicitation, risk analysis, and conflict management. The course covers various forms of reasoning about models for requirements quality assurance, discusses the transitions from requirements to software specifications to software architecture. In addition, case studies are included that complement the many examples provided in the course in order to show how the described methods and techniques are applied in practical situations.

IS320: Introduction to Database

Databases represent, nowadays, the standard technology for storing and querying data. This course focuses on the definition of the databases theory, starting from the definition of basic concepts, data modeling (ERD), mapping to relation schema and normalization and SQL & PL/SQL language.

IS309: Systems Analysis and Design

This course introduces the fundamental principles of object-oriented approaches to modeling software requirements and design. It has been designed to integrate theoretical concepts of system analysis and design with practical examples and case studies so as to teach both the theory and the practice of this subject. Over the last few years, the object-oriented software industry has gone through the process of standardizing visual modeling notations. The Unified Modeling language (UML), a modeling language for specifying, visualizing, constructing, and documenting, is the product of this effort. UML unifies the notations that currently exist in the industry. This course also introduces UML to the students.

IS371: Database Management System

This course is intended to give students a solid background in database management systems and database maintenance. Such systems will be examined from two perspectives: 1. as a database system user, and 2. as a database system administrator. First, the course will cover the basic structure and capabilities of a database system, and will examine the process of designing a database and using a database system. Second, the course will teach student to understand the implementation of database system.

The students will be familiar with centralized systems, client–server systems, parallel and distributed architectures, and network types. Its main focus is towards the fundamentals of a transaction-processing system, including transaction atomicity, consistency, isolation, and durability, as well as the notion of serializability.

Students will be exposed to the concurrency control mechanism and several techniques for ensuring serializability, including locking, time stamping, and optimistic (validation) techniques. They will also be learning deadlock issues like deadlock detection and deadlock recovery.

At the end of the course, students are expected to be familiar with database administration and creating and configuring an Oracle database. Particular attention will be paid towards managing users and securing the Database as well as monitoring database operations. Database maintenance is also another main focus of the course.

IS332: Decision Support System

This course has been designed to integrate theoretical concepts of decision support system with their practical applications found in operation research so as to teach both the theory and the practice of Information systems management and decision making. The emphasis on practice is important because in many areas of information systems theory lags practice. In fact, it is the objective of this course not only to understand the current practices but also to contribute to them. For this reason some optimization methods have been included to solve real known problems in life. The students will learn how to model problems and determine the right techniques to solve them; and be able to make the right decision.

IS203: Web Programming

This course will introduce basic topics on Application development especially Web Programming. More specifically the students are expected to acquire the necessary skills to use HTML, CSS3 and related technologies to create simple web sites. Furthermore, they will learn Java script and are expected to build more sophisticated sites. After learning Java script skills, they will learn PHP in order to be capable of creating simple client-server solutions.

IS391: Seminar

This course introduces students to basic ideas about research and related issues. Students will explore methods for reading different research papers related to IS field. They will learn how to analyze and synthesize research articles. The research on contemporary issues related to IS and its findings' presentation will be done in form of groups for which students are expected to read number of papers and articles.

IS433: Information Systems Security

This course aims to provide students with an academic overview of information security covering its main domains. The course provides the foundation for understanding the key issues associated with protecting information using cryptographic algorithms, determining the authentication and authorization techniques for safe access to information, and assigning the features of information security protocols. In addition, the course will provide the student with an overview of the main software flaws and different ways of protections against intruders. Students will be exposed to the spectrum of security activities, methods, and techniques. By the completion of this course, students should appreciate the significance of information security in the IT realm, and be able to demonstrate in-depth knowledge of information security technical key principles and techniques. Upon successful completion of this course, students will have a broad ethical knowledge of the major technical security challenges.

IS441: Information Systems Project Management

This course discusses the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex team based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization.

IS497: Senior Information Systems Project Phase I

This course is the first part of a sequence of two courses that constitutes the BSc graduation project. In this part, the students are expected to propose, analyze, and design an information system under direct supervision of a faculty member which will be implemented and tested in the second part (IS498). The course requires students to synthesize and apply materials learnt in previous courses. This course will equip undergraduate Information Systems students with the basic skills to conduct and manage a project in the field of Information Systems, writing technical reports and the skills for presenting the work to audiences. This course will particularly focus on topics which are related to the field of information systems. The course will also provide guidance to the

students in selecting business-focused projects, understanding the research process as well as the tools needed to support implementing the system, writing its documentation, presentation skills and ethical issues such as avoiding plagiarism.

IS400: Practical Training

Practical training is one of the important tools in the higher education that aims to improve the student's practical skills. Throughout this training program, IS students have to spend a period in on job training of at least 8 weeks. The training program should be accomplished in either governmental or private sector in an organization that will give student an opportunity to study its information system. Training program aims to strengthen student's background and expose them to theoretical concepts by connecting them to the real environment.

IS414: E-Business Strategy, Architecture and Design

This course introduces the concept of e-business and e-commerce, the various business models that can be adopted in the internet, the supported technologies that can be used to build a successful e-business. Also, it explains the different EC-security issues. The overall aim is to develop a familiarity with the concepts and tools of electronic commerce, and to understand the process by which e-Commerce systems are designed, implemented, managed, and evaluated. Although students will be exposed to some technologies (PHP, AJAX, MySQL, SMRTY and PDO) and strategies specific to internet commerce applications, the intention is that students will understand how to put together what they already know from other courses to build advanced web applications.

IS498: Senior Information Systems Project Phase II

This course is the second part of a sequence of two courses that constitutes the BSc graduation project. In this part, the student is expected to complete the implementation of project that was proposed in the first part (IS497) under direct supervision of a faculty member. The student will deliver a detailed report about his/her project and a poster presentation that summarizes the idea of the project. In addition, the student is required to present his work in front of an examination committee consisting selected faculty members of the college.

IS395 - 7: Selected Topics in Information Systems I, II & III

These three courses explore topics in Information Systems, which are not covered by any of the courses in this curriculum like: ERP, Geographical Information Systems, Data Mining…etc.