

Plan for the Bachelor Degree in Management Information Systems

The Bachelor Degree in Management Information Systems/Faculty of Information Technology and Computer Sciences is granted upon the completion of the following requirements:

1. The fulfillment of the conditions stated in by the set of Instructions for Awarding the Bachelor Degree at Yarmouk University number (2) for the Year 1991 and its amendments according to the Law Governing the Granting of Scientific Degrees and Certificates at Yarmouk University No. 118 for the year 2003.
2. University requirements as mentioned before which have 27 credit hours.
3. Faculty requirements as mentioned before which have 21 credit hours.
4. The Management Information Systems Department (MIS) requirements (86 Credit hours) distributed as follows:

Table for the number indication in the course number for the bachelor degree in the MIS department

Number	Knowledge Area
0	Basic Courses
1	Programming Languages
2	System Environment
3	Management and Information
4	Operations Research
5	E-Commerce
6	System Analysis and Development
7	
8	System Applications
9	Project and Special Topics

A) Single-Major Course Requirements (86 Cr. Hrs.):

1) Obligatory Courses (56 Cr. Hrs.):

Course Number	Course Name	Credit Hours	Weekly Hours		Pre-requisite / Co-requisite
			Theory	Practical	
MIS 241	Operation Research	3	3	0	MATH 141
MIS 250A	Electronic Commerce	3	3	0	CIS104
MIS 310	Programming For Management Information Systems	3	3	0	CS101A , CS101B, Co-requisite:MIS312
MIS312	Programming For Management Information Systems Lab	1	0	3	Co-requisite:MIS310
MIS360	Systems Analysis And Design	3	3	0	MIS310, CIS260
MIS361	Software Project Management	3	3	0	MIS360 (or) CIS240Co-requisite: MIS362
MIS362	Software Project	1	0	3	Decision Support System

	Management Lab				
MIS 421	Legal Issues In Information Management	3	3	0	MIS120, MIS250A
MIS480	Decision Support Systems	3	3	0	CIS240 or MIS360 Co-requisite:MIS485
MIS485	Decision Support Systems Lab	1	0	3	Co-requisite:MIS480
MIS499A	Graduation Project	3	3	0	Complete successfully 98 credit hours
CS 117	Object Oriented Programming	3	3	0	CS101, Co-requisite: CS118
CS 118	Object Oriented Programming Lab	1	0	3	Co-requisite: CS117
CS 334	Data and Network Communication	3	3	0	CS130, Co-requisite: CS335
CS 335	Data and Network Communication Lab	1	0	3	Co-requisite: CS334
CIS 260	Database Systems	3	3	0	CS117
MATH 141	Applied Math for Information Systems	3	3	0	MATH101
BA 101	Fundamentals of Management (1)	3	3	0	-----
PAD 470	Decision Theory	3	3	0	-----
B.F 210	Principles of Finance (1)	3	3	0	-----
MKT 220	Principles of Marketing (1)	3	3	0	-----
ACC 102	Fundamentals of Accounting (1)	3	3	0	-----
Total		56	51	15	

2) Elective Courses (30 Credit hours):

a) (15 Cr. Hrs.) Chosen from the following courses (at least 6 credits from the major)

Course Number	Course Name	Credit Hours	Weekly Hours		Pre-requisite
			Theory	Practical	
MIS 220	Management Of Technology Innovation	3	3	0	MIS250A , BA101
MIS 380	Business Databases	3	3	0	CIS260
MIS 381	Production Information Systems	3	3	0	MIS241
MIS 460	Control And Security Of Systems	3	3	0	MIS360
MIS 461	Managing For Quality Improvement	3	3	0	MIS360
MIS 481	Financial Information Systems	3	3	0	MIS250A
MIS 482	Marketing Information Systems	3	3	0	MIS250A
MIS 492	Special Topics	3	3	0	MIS360
CS 250	Data Structures	3	3	0	CS117
CIS 281	Multimedia Systems	3	3	0	CIS104, Co-requisite CIS285
CIS 285	Multimedia Systems Lab	1	0	3	Co-requisite CIS281
CIS 341	Web Sites Design	3	3	0	CIS240 or MIS360

CIS 382	Develop Internet Applications	3	3	0	CIS341
CIS 431	Internet Services	3	3	0	CS334
CE 496 *	A Training Course in the IT Field	3	3	0	----

* This course is considered for a student if he or she finishes one of the recognized training courses in the university for this purpose.

b) 15 elective credit hours distributed as follows:

1) 6 credit hours the student can select from the following courses:

Course Number	Course Name	Credit Hours	Weekly Hours		Pre-requisite
			Theory	Practical	
BA 102	Fundamentals of Management (1)	3	3	0	BA101
BA 251	Organizational Supervision	3	3	0	BA102
BA 303	Production Management	3	3	0	-----
BA 309	Small Business Management	3	3	0	BA101
BA 350	Personnel Management	3	3	0	BA101
BA 498	Management Skills	3	3	0	Graduate Candidate
MKT 321	Sales Management	3	3	0	-----
MKT 329	Banking Marketing	3	3	0	-----
PAD 351	Manpower Planning & Development	3	3	0	BA101, BA102
ECON 101	Principles of Micro Economics	3	3	0	-----
ECON 200	Research Methods in Economics	3	3	0	-----
ACC 102	Fundamentals of Accounting (2)	3	3	0	ACC101
ACC 341	Financial Statement Analysis	3	3	0	ACC102
B.F 209	Mathematics of Finance	3	3	0	-----
B.F 316	Bank Management	3	3	0	B.F210

B) Major-Minor Course Requirements (86 Cr. Hrs.) distributed as the following:

1) Major in Management Information Systems: Will have 65 credit hours distributed as the following:

a) Obligatory courses: 56 credit hours and those are the same courses for the single major in the MIS department.

b) Elective courses: 9 credits can be selected from the following courses with the condition that at least 3 credit hours are from the MIS department:

Course Number	Course Name	Credit Hours	Weekly Hours		Pre-requisite
			Theory	Practical	
MIS 380	Business Databases	3	3	0	CIS260
MIS 381	Production Information Systems	3	3	0	MIS241
MIS 421	Legal Issues In Information Management	3	3	0	MIS120, MIS250A
MIS 460	Control And Security Of Systems	3	3	0	MIS360
MIS 461	Managing For Quality Improvement	3	3	0	MIS360

MIS 481	Financial Information Systems	3	3	0	MIS250A
MIS 482	Marketing Information Systems	3	3	0	MIS250A
MIS 492	Special Topics	3	3	0	MIS360
CS 250	Data Structures	3	3	0	CS117
CIS 382	Develop Internet Applications	3	3	0	CIS341
CIS 431	Internet Services	3	3	0	CS334
CE 496 *	A Training Course in the IT Field	3	3	0	----

* This course is considered for the student if he or she finishes one of the recognized training courses in the university for this purpose.

2) Minor in other Specializations:

- According to the requirements set by the department offering the Minor Specialization, provided that the number of credit hours is not less than (21 Cr. Hrs.).
- The departments of the minor Specialization are:, Departments of the Faculty of Economy and Management Science.

C) Course requirements for Minor specialization in Management Information Systems (21 Cr. Hrs.):

1) Obligatory Courses: 15 credits hours:

Course Number	Course Name	Credit Hours	Weekly Hours	
			Theory	Practical
MIS 310	Programming For Management Information Systems	3	3	0
MIS312	Programming For Management Information Systems Lab	1	0	3
MIS360	Systems Analysis And Design	3	3	0
MIS361	Software Project Management	3	3	0
MIS361	Software Project Management	3	3	0
MIS480	Decision Support Systems	3	3	0
MIS485	Decision Support Systems Lab	1	0	3

2) Elective Courses: 6 credits the student can select from the following courses:

Course Number	Course Name	Credit Hours	Weekly Hours	
			Theory	Practical
MIS 250A	Electronic Commerce	3	3	0
MIS 380	Business Databases	3	3	0
MIS 421	Legal Issues In Information Management	3	3	0
MIS 461	Managing For Quality Improvement	3	3	0
MIS 481	Financial Information Systems	3	3	0
CIS 260	Database Systems	3	3	0

Description of Courses

Offered by the

Department of Management Information Systems (MIS)

MIS 120: SYSTEMS ENVIRONMENT

3 Hrs. (Prereq.: CIS 103)

The main objective of this course is to provide an overview of the status of information technology infrastructure in Jordan and to relate it to the principles and various approaches of managing information technology at the national level. The course addresses topics covering: IT governance; business and government initiatives and achievements; e-government; legislations relating to IT and information access; IT strategies, plans and policies; IT business and how to "manage" information technology in the business world; factors impacting the success of new computing and communications products and services in business and other application areas; the advantages and consequences of networking and its local implementations.

MATH 141: APPLIED MATH FOR INFORMATION SYSTEMS 3 Hrs. (Prereq.: MATH 101)

The objective of this course is to expose students to the different mathematical applications used in information systems. Topics to be covered include: Logic, and Boolean algebra, arithmetic progressions, compounding and percentage with applications on time series, matrix basics, linear systems and their applications, matrix operations, linear functions such as slope, intercept, and graphing, The course covers examples, applications and case studies in information systems.

MIS 220: MANAGEMENT OF TECHNOLOGY INNOVATION

3 Hrs. (Prereq.: BA101, MIS 250A)

The objective of this course is to provide comprehensive frameworks for businesses based on technology innovation, and provide an overview of its relations with business transactions. Topics to be covered include: competitive and economic value added, building and maintaining an organization based on creativity, innovation strategies, developing and utilizing strategic thinking, and product development processes and practices.

MIS 241: OPERATION RESEARCH

3 Hrs.

(Prereq.: MATH 141)

The main objective of this course is to introduce the students to the basic concepts of operations research, and evaluating the different operation research models while stressing on the importance, need and role of operations research in improving the competitive position of business organizations. Topics to be covered include: operation research methodology in problem solving, the role of quantitative analysis in the decision making process, linear programming, transportation and assignment, forecasting models, project scheduling like (PRT,CPM), inventory models, and queuing models. In addition, the students will use the lab to apply some of the concepts covered in the lectures.

MIS 250A: ELECTRONIC COMMERCE

3 Hrs. (Prereq.: CIS 104)

The main objective of this course is to examine critical information technologies that provide the basis for electronic commerce, and their application in a variety of sectors and industries. Topics to be covered include: business opportunities, challenges, E-commerce strategies, business and technical implications of e-commerce architectures, competitive advantage, current and emerging technologies, pricing, distribution channels, promotion, and advertising.

Students will use the lab to apply some of the concepts covered in the lectures.

MIS 310: PROGRAMMING FOR MANAGEMENT INFORMATION SYSTEMS

(Prereq.: CS101, Co-req.: MIS 312) 3 Hrs.

The main objective of this course is to enhance students capabilities for writing high quality programs. Students will learn how to write programs and develop interactive business applications programs using visual-based programming environment on the Internet. Topics to be covered include: Program development, working with form properties, adding controls to a form, mutable forms, creating users interface, creating menus, creating executable files, and distributing Windows applications. This course is supplemented by practical components covered in MIS 312)

MIS 312: PROGRAMMING FOR MANAGEMENT INFORMATION SYSTEMS LAB

(Co-req.: MIS 310) 1 Hr.

This course is intended to complement MIS 310 to have students apply the concepts covered in that course by using a high level visual-based programming language, through a set of laboratory experiments which will provide hands-on experience in the related topics.

MIS 360: SYSTEMS ANALYSIS AND DESIGN

3 Hrs. (Prereq.: MIS 310, CIS 260)

The main objective of this course is to provide students with an overall foundation of systems analysis and design to effectively and efficiently design and implement system. Topics to be

covered include: system development tools, cost benefit analysis, prototyping, alternate system design strategies, designing human interface, software development life cycle, rapid application development and CASE tools, systems planning and selection, system analysis, system design, and system implementation and operation. For practical applications, the students will use some tools and apply some of the concepts covered in lectures.

MIS 361: SOFTWARE PROJECT MANAGEMENT

3 Hrs. (Prereq.: MIS 360, (or) CIS 240, Co-req.: MIS 362)

The main objective of this course is to provide students with the principles of managing the development of software projects, from requirements definition to successful delivery. Topics to be covered include: key generic project management concepts and , techniques, projects planning , WBS development, projects tracking, and effective management of software projects. This course is supplemented by practical components covered in MIS 362)

MIS 362: SOFTWARE PROJECT MANAGEMENT Lab 1 Hr. (Co-req.: MIS361)

This course is intended to complement MIS 361 by providing students with hands-on experience in the related topics. Students will gain practical experience with tools used in project management such as Microsoft Project, COCOMO, and Monte Carlo Simulate, while working as part of a project team.

MIS 380: BUSINESS DATABASES 3 Hrs. (Prereq.: CIS260)

The main objective of this course is to provide students with the skills needed to apply the database theory in business enterprises; it presents variety of cases of business databases. Topics to be covered include: the need and the role of databases in an organization, database administration and tools, Internet technology and databases, concurrency and recovery, and security measures. In addition, the students will use the lab to apply some of the concepts covered in the lectures using Oracle or SQL.

MIS 381: PRODUCTION INFORMATION SYSTEMS 3 Hrs. (Prereq.: MIS 241)

The main objective of this course is to provide students with an overall understanding of how computers are being applied in production (in both the physical systems of the organization and its conceptual system). Topics to be covered include: production control systems' analysis such as inventory systems, MRP and JIT, monitoring the production function practically by means of networked data collection terminals and how systems like CAD, CAM,CUM, etc help to optimize the production process.

MIS 421: LEGAL ISSUES IN INFORMATION MANAGEMENT

3 Hrs. (Prereq.: MIS 120, MIS 250A)

The main objective of this course is to familiarize students with the legal concepts, legislation, and laws related to the information systems. Topics to be covered include: interaction between information management and law; rights and responsibilities of those involved or affected, copyright, confidential information, freedom of speech and information privacy.

MIS 460: CONTROL AND SECURITY OF SYSTEMS 3 Hrs. (Prereq.: MIS 360)

The main objective of this course is to familiarize students with the fundamental framework for network security, and the nature of the security issues involved in modern information systems. Topics to be covered include: protection, access control, distributed access control, applied cryptography in IS, network security, illustration of case studies from real-world systems, cryptographic protocols, privacy and anonymity, analyzing business information systems to detect problems and weaknesses.

MIS 461: MANAGING FOR QUALITY IMPROVEMENT 3 Hrs. (Prereq.: MIS 360)

The main objective of this course is to present modern methods for achieving high quality software and familiarize students with the operational aspect of quality improvement in organizations. Topics to be covered include: importance of process definition, measurement and continuous improvement, developing thorough statistical process control, Total Quality Management, and the difficulties in implementing quality efforts in organizations.

MIS 480: DECISION SUPPORT SYSTEMS

(Prereq.: MIS 241, PAD 470, Co-req.: MIS 485) 3Hrs.

The main objective of this course is to foster a comprehensive understanding of the decision support system (DSS), while stressing on the important role these systems play in business today. Topics to be covered include: decision making process, modeling analyzing and developing DSS, Artificial Intelligence concepts (including intelligent systems), case-based reasoning, expert systems, rule-based systems, machine learning methods, data mining, and neural networks. This course is supplemented by practical components covered in MIS 485)

MIS 481: FINANCIAL INFORMATION SYSTEMS 3 Hrs. (Prereq.: MIS 250A)

The objective of this course is to provide students with the fundamental concepts of financial systems, while focusing on how technology is both a driver of change as well as the vehicle for their implementation Topics to be covered include: contribution of internal auditors, external auditor, and marketing researchers to develop computerized financial systems, long-rang forecasting and its position in the MIS framework, design and analysis of financial information systems in terms of money flow.

MIS 482: MARKETING INFORMATION SYSTEMS 3 Hrs.

(Prereq.: MIS 250A)

The objective of this course is to provide students with the fundamental concepts of marketing information systems, and examines the practices, strategies, and managerial problems unique to marketing and distribution of products and services to the buyers. Topics to be covered include: analysis and design of marketing information systems, designing and developing marketing intelligence subsystem, marketing communication subsystem, and types and features of the marketing information systems. Students will work on case studies of the Marketing Information Systems of large organization to see how some of the concepts covered in the lectures are being applied.

MIS 485: DECISION SUPPORT SYSTEMS LAB 1 Hr.

(Co-req.: MIS 480)

This course is intended to complement MIS 480 to have students apply the concepts covered in that course, and provide them with a practical understanding of the key technical and managerial issues in the effective design, development, use, and evaluation of the Decision Support Systems (DSS). Laboratory experiments will cover the decision making process, modeling and analysis of developing DSS.

MIS 492: SPECIAL TOPICS

3 Hrs.

(Prereq.: MIS 360)

The objective of this course is to provide an in-depth study of current topics in information management systems that are not covered in any other course and approved by the department.

MIS 499A: GRADUATION PROJECT

3 Hrs.

(Prereq.: MIS 360)

The objective of this course is to have students deliver projects for a client-business firm or other organization. Students work with their clients, perform an analysis, provide design alternatives, evaluate alternatives, develop and demonstrate a working computerized model of a part of the system, prepare a recommendation and make a formal presentation to the client.