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NCAAA

T4

2020

Course Specifications

Course Title:	Fundamentals of Information Systems
Course Code:	CSI 124
Program:	Computer Sciences &Information Technology
Department:	Computer Science and Information
College:	Science in Al-Zulfi
Institution:	Majmaah University

Table of Contents

A. Course Identification

1. Credit hours: 3 hours

2. Course type

a. University ☐ College ☐ Department ☒ Others ☐

b. Required ☒ Elective ☐

3. Level/year at which this course is offered: 4th Level

4. Pre-requisites for this course (if any): **Nil**

5. Co-requisites for this course (if any): **Nil**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	80%
2	Blended	10	10%
3	E-learning	5	10%
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

The course provides an overview of the fundamentals of data and information processing as they relate to meeting the needs of an organization. Also, it provides an understanding of how information systems are used in organizations. These objectives can be successfully achieved through the conduct of the following topics: Basic Concepts of Systems: What are they, Why we need them, How are they constructed, When and where are they used. Components of Information Systems, Page 3 Of 9 Levels and Types of Information Systems, Important illustrative examples of Real-life Practical Information Systems: DSS, ERP, Expert Systems, GUI, and Internet Portals. Also, the course introduces system hardware, system software, Telecommunications and networks and also provides an introduction to Databases.

2. Course Main Objective

Demonstrate why information systems are so vulnerable to damage, error, abuse and quality problems.

- Comprehend the special measures required to ensure the reliability, availability, and security of electronic commerce and the digital business processes.
- Describe the most important software quality assurance techniques.
- Enable students to be efficient in their work

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Explain how and why information systems are used today, and how information systems are enabling new forms of commerce between individuals, organizations, and governments, and discuss globalization and the role information systems has played in this evolution.	k1
2	**Skills :**	
2.1	Use some current technical concepts and practices and describe the current and emerging technologies that enable new forms of communication, collaboration, and partnering, and explain and contrast how organizations develop and acquire information systems and technologies.	k2
3	**Values:**	
3.1	Adhere to professional, ethical, legal, security, and social issues and their responsibilities that are related to information systems.	c1
3.2	Function effectively on teams to accomplish a common goal, and communicate effectively with a range of audiences.	c2

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Information Systems: Importance of information systems – Components of information systems - IS Knowledge Framework for Business Professionals - What does IS do for a business? - E-business use - Types of IS - Developing IS Solutions - Ethical challenges of IT applications - Challenges of IT Careers - Information systems model - IS Activities – Case Studies.	12
2	Calculating pre-computer - Next wave of computing – Microcomputers - Computer System Categories – How to Choose Computers - Input technologies - Speech Recognition Systems - Storage Trade-Offs - Radio Frequency Identification.	9
3	Computer Software: Types of software - Application software – System software - Software classifications - Software Suites - Integrated Packages - Software alternatives - Software Licensing - Popular Operating Systems - Other types of system software - Programming Languages - Web Languages - Web Services – Case Studies.	6

4	Data Resource Management: Fundamental Data Concepts - Database Structures - Relational Operations - Evaluation of Database Structures - Database Development - Types of databases - Extracting Business Knowledge from Data Warehouse (Data Mining) - DBMS Major Functions - Database Interrogation - Database Maintenance - Application Development – Case studies.	9
5	Telecommunications and Networks: Network Concepts - Trends in Telecommunications - Open Systems - Digital Network Technologies - Business Value of Telecommunication Networks - The Internet - Internet Service Provider - Popular uses of the Internet – Network Types - Telecommunications Media - Wireless Technologies - Telecommunications Processors - Telecommunications Software - Network Topologies - Network Architectures & Protocols - OSI & TCP/IP Models - Transmission Speeds - Switching Alternatives – Case Studies.	9
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Explain how and why information systems are used today, and how information systems are enabling new forms of commerce between individuals, organizations, and governments, and discuss globalization and the role information systems has played in this evolution.	▪ **Direct Teaching:** Lectures, PowerPoint slides and discussion. ▪ **Aimed Teaching** Discovery and Oral Questions.	- Homework tasks - Midterms - Final Exam
2.0	**Skills**		
2.1	Use some current technical concepts and practices and describe the current and emerging technologies that enable new forms of communication, collaboration, and partnering, and explain and contrast how organizations develop and acquire information systems and technologies.	**Indirect Teaching:** Brainstorming - Free Discovery – Inquiry	- homework
3.0	**Values**		
3.1	Adhere to professional, ethical, legal, security, and social issues and their	**Course Project:** (Work group)	to enable students to have an experience in

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	responsibilities that are related to information systems.	critical thinking and ability to seek solutions.	problem solving situations.
3.2	Function effectively on teams to accomplish a common goal and communicate effectively with a range of audiences	Small group discussion Whole group discussion Brainstorming Presentation	Oral discussion

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	First written mid-term exam	6	15%
2	Second written mid-term exam	12	15%
3	Presentation, class activities, and group discussion	Every Week	10%
4	Homework assignments	After every chapter	10%
5	Implementation of presented concepts	Every two weeks	10%
6	Final written exam	16	40%

Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- Determine meeting appointments for the weak' students to solve their problems and give them academic advices.
- One office hour daily
- Motivate students

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	O'Brien and MaraKas, George Marakas ; Introduction to Information Systems (16th Ed.) McGraw Hill, Business and Economics, 2012
Essential References Materials	V. Rajaman; Analysis and Design of Information Systems; 2nd Edition; PHI Learning Pvt Ltd; Aug. 2004. ☐ Ralph Stair and George Reynolds, "Fundamentals of Information Systems", Course Technology, 3rd Edition2005.

Electronic Materials	Internet https://www.coursera.org/
Other Learning Materials	-Video and presentation are available with me.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom
Technology Resources (AV, data show, Smart Board, software, etc.)	Data show – Smart Board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	none

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
1. Questionnaires (course evaluation) filled by the students and acquired electronically by the University	Students	Indirect Assessment
2. Students-faculty management meetings		
3. Departmental internal review of the course.	Department Council	Questionnaires
4. Midterms and Final Exam	Course Coordinator Staff	Direct Assessment

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	

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