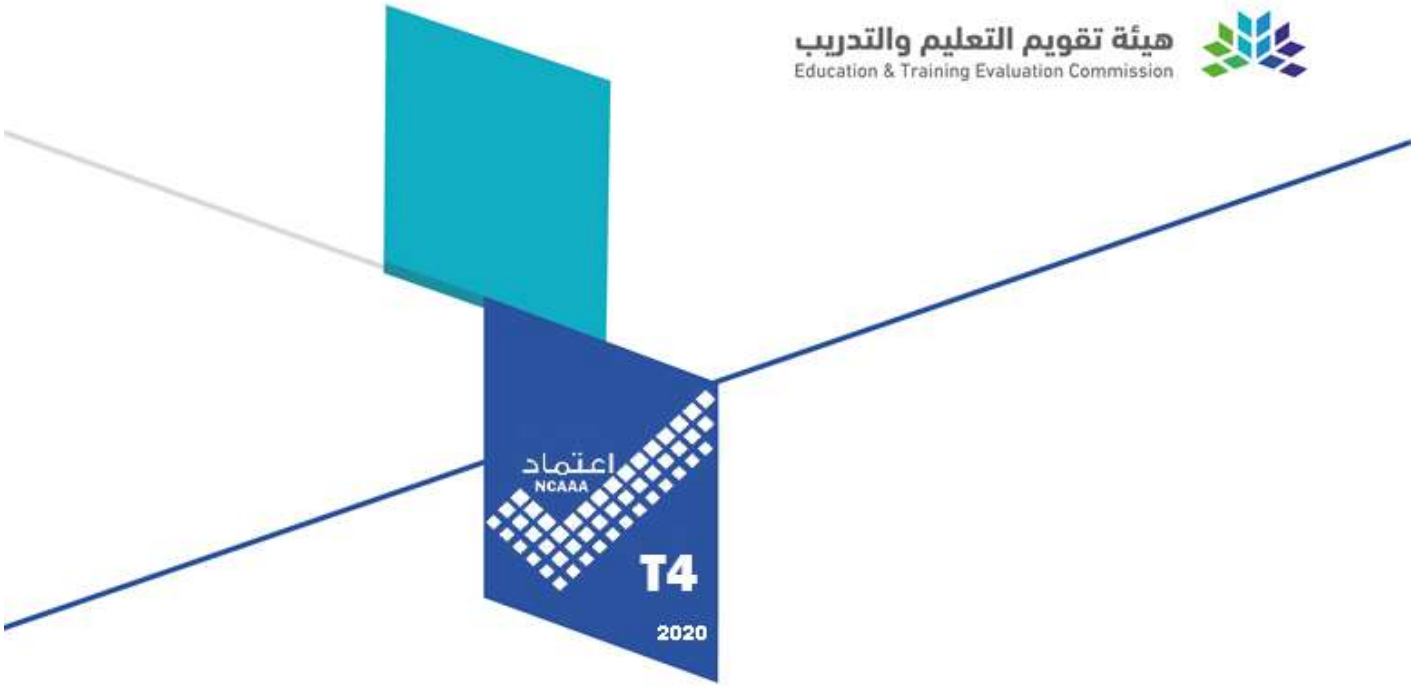
الرقم: ٦٦/١٨٨٣١ التاريخ: ١٤٤٤/٠٥/١١ عدد المرفقات: *



Course Specifications

Course Title:	**System Integration**
Course Code:	**IT412**
Program:	**Information Technology**
Department:	**Information Technology**
College:	**College of Computer and Information Sciences**
Institution:	**Majmaah University**

الرقم: ٦٦/١٨٨٣١ التاريخ: ١٤٤٤/٠٥/١١ عدد المرفقات: *

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A. Course Identification

1. Credit hours: (3,0,1)
2. Course type **a.** University ☐ College ☒ Department ☐ Others ☐ **b.** Required ☐ Elective ☐
3. Level/year at which this course is offered: 4th Year
4. Pre-requisites for this course (if any)**:** CS 312 – Software Engineering
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 (Online)**	44	100%
2	**Blended**		
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	33
2	**Laboratory/Studio**	
3	**Tutorial**	11
4	**Others** (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

This course focuses on the integration of information systems in organizations, the process by which different computing systems and software applications are linked together functionally or physically. It examines the methods and strategies for combining a set of interdependent systems into a unified and functioning integrated system, where two or more applications are seamlessly interacting and exchanging data. The course will demonstrate the use of tools and techniques in systems integration as well as prove practices for integration projects

2. Course Main Objective

This course had following objectives, Integrate information systems in organizations, Apply the strategies and methods for blending a set of interdependent systems into a functioning or unified whole, Use tools and techniques for systems integration, Manage integration projects.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	**Knowledge and Understanding**	
1.1		
1.2		
1.3		
1...		
2	**Skills :**	
2.1	Apply the strategies and methods for blending a set of interdependent systems into a functioning or unified whole	S6
2.2	Integrate systems & application in organizations	S1
2.3	Use tools and techniques for Systems Integration	S1
2.4	Manage integration projects.	S2
2.3		
3	**Values:**	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Application Integration Overview, Vertical Integration, Star Integration, Spaghetti Integration, Horizontal Integration or Enterprise Service Bus (ESB)	3
2	Business Oriented Integration, Service Oriented Integration	3
3	Transaction management; concepts, characteristics, and processing	3
4	Portal Oriented Integration	3
5	Middleware Basics & Types	3
6	Serializability & Deadlock	3
7	Linux Administration	3
8	Linux Security	3
9	Use tools and techniques for systems integration	3
10	Introduce the major design, implementation & distributed deployment issues regarding system integration	3
11	Manage integration projects	3
12	Network Operating Systems (NOS)	3
13	e-commerce and e-business applications implementation, cross-servers & multiple locations	3
14	e-sessions migration and the related communications security	3
15	Summary	2
Total		44

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			
1.2			
…			
2.0	**Skills**		
2.1	Apply the strategies and methods for blending a set of interdependent systems into a functioning or unified whole	Classroom Teaching	Home Work, Mid Exam, Final Exam
2.2	Integrate information systems in organizations	Classroom Teaching	Home Work, Mid Exam, Final Exam
2.3	Use tools and techniques for systems integration	Classroom Teaching	Home Work, Mid Exam, Final Exam
2.4	Manage integration projects	Classroom Teaching	Mini Project
3.0	**Values**		
3.1			
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1			
2	Mid-Term Exam	6	20%
3	Mini-project/ Exercise	10	10%
4	Assignments, Homework and Quiz	4, 7	30%
5	Final Exam	12	40%
6			
7			
8			

***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 :

Four office hours per week are dedicated for the students.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Next Generation Application Integration, Linthicum, Addison-Weseley,2003, Setting up LAMP, Rosebrock Filson, Sybex,2004
Essential References Materials	
Electronic Materials	• http://www.sdl.edu.sa • http://lms.mu.edu.sa
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Class Room. Lab.
Technology Resources (AV, data show, Smart Board, software, etc.)	Computer. or Laptop with Windows/Linux.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Projector and Smart Board.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Final Exam Answer Scripts Verification	Peer faculty members	Review
Course Feedback	Students	Survey

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	IT Council
Reference No.	IT Meeting 3/1439-40
Date	1441/2/24