



## Course Specifications

<b>Course Title:</b>	Database Management Systems
<b>Course Code:</b>	IS 233
<b>Program:</b>	Information Technology
<b>Department:</b>	Information Systems
<b>College:</b>	College of Computer and Information Sciences
<b>Institution:</b>	Majmaah University



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## A. Course Identification

<b>1. Credit hours:</b> 3 (3+0+1)
<b>2. Course type</b>
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> Level-6
<b>4. Pre-requisites for this course (if any):</b> IS 213
<b>5. Co-requisites for this course (if any):</b> NA

## 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	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)	
	<b>Total</b>	<b>44</b>

## B. Course Objectives and Learning Outcomes

<p><b>1. Course Description</b>  <b>This course is introducing the following topics</b>            DBMS architecture and administration; centralized and client-server approaches, system catalog, and data dictionary, transaction management; concepts, characteristics, and processing, recovery techniques, concurrency control techniques: serializability, deadlock, locking schemes, time-stamp ordering, multi-version, and optimistic techniques, DB security, distributed databases, distributed DBMS, data fragmentation and replication, and distributed transactions management</p>
<p><b>2. Course Main Objective</b>  <b>After successful completion of this course, student will be able to-</b></p> <ol style="list-style-type: none"> <li>1. Recognize the main functions of database management.</li> <li>2. Be able to analyse an algorithm for query processing and to optimizing it.</li> <li>3. Learn transaction management, concurrency and recovery of a database.</li> <li>4. Recognize the importance of database security and authentication of users.</li> <li>5. Understand the need for distributed systems and how databases are distributed.</li> </ol>



### 3. Course Learning Outcomes

CLOs		Aligned PLOs
1	<b>Knowledge and Understanding</b>	
1.1	CLO(1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions	K1
1.2		
1.3		
2	<b>Skills :</b>	
2.1		
2.2	CLO(4) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	S2
2.3		
3	<b>Values:</b>	
3.1		
3.2		
3.3		

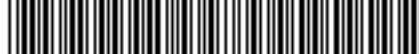
### C. Course Content

No	List of Topics	Contact Hours
1.	DBMS architecture and administration; centralized and client-server approaches System catalog, and data dictionary	4
2.	Transaction management; concepts, characteristics, and processing	4
3.	Recovery techniques	4
4.	Concurrency control techniques	4
5.	Serializability & Deadlock	4
6.	Locking schemes	4
7.	Time-stamp ordering, multi-version, and optimistic techniques	4
8.	DB security	4
9.	Distributed databases & Distributed DBMS	4
10.	Data fragmentation and replication	4
11.	Distributed transactions management	4
<b>Total</b>		<b>44</b>

### 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	<b>Knowledge and Understanding</b>		
1.1	CLO(1) Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions	lecture, lab	Class Test, Mid Exam, Final Exam
1.2			
...			
2.0	<b>Skills</b>		



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.1			
2.2	CLO(4) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	lecture, lab	Group Assignments, Mini Project
3.0	<b>Values</b>		
3.1			
3.2			

## 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quizzes	Week 3, Week 8	20%
2	Assignments	Week 3, Week 9	10%
3	Mid Term Exam	Week 5	20%
4	Tutorial	Every Week	10%
5	Final Exam	Week 12	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 :**

**Each student is allotted to an academic advisor for guidance and counselling**

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	Carlos Coronel, Steven Morris, and Peter Rob, Database Principles: Fundamentals, Design, Implementation, and Management, Cengage Learning, 10th edition, 2013.
<b>Essential References Materials</b>	<ul style="list-style-type: none"> <li>Jeffrey D Ulman, Jenifer Widom, a first course in Database Systems, Pearson New International Edition, 3rd edition, 2007</li> <li>Ramakrishnan, Gehrke, Database Management Systems, Mc Graw Hill, 3rd edition, 2002</li> </ul>
<b>Electronic Materials</b>	<ul style="list-style-type: none"> <li>IEEE Computer Society – Participation in Webinars and discussions through blogs</li> </ul>
<b>Other Learning Materials</b>	YouTube for extra tutorial SQL Lab, Cloud oracle apps, research papers

### 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	PC or Laptop with Windows/Linux, Smart Board, Projector
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Internet Connection



## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Final Exam Answer Scripts Verification	Peer faculty members	Review
Course Feedback	Students	Survey
Achievement of CLOs	Instructor	Direct

**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	



# COURSE SYLLABUS

## DEPARTMENT OF INFORMATION TECHNOLOGY

FALL 2022

Course Code	Course Title
IS 333	SOFTWARE PROJECT MANAGEMENT
<b>Course Credit</b>	: 3 (3,0,1)
<b>Pre-requisite</b>	: 100 Credits
<b>Instructor</b>	: Dr. Badr Almutairi Department of Information Science College of Computer and Information Sciences Majmaah University Email: b.algoian@mu.edu.sa
<b>Course Time(s)</b>	: <b>Sunday 08:00 PM - 10:00 PM, Monday 08:00 PM - 10:00 PM</b>
<b>Location(s)</b>	: Section 1883 (Room # 2),
<b>Office Hours</b>	: <b>Sunday 10:00 AM - 11:50 AM, Monday 10:00 AM- 10:50 AM,</b> Wednesday 12:00 PM to 2:00 PM, (Staff Room #27)
<b>Final Exam</b>	: As per schedule --- (Comprehensive)
<b>Textbook(s)</b>	: 1. Kathy Schwalbe, Information Technology Project Management, Revised, International Edition, 7 <sup>th</sup> Edition, Cengage Learning, 2013.

### Course Requirements and Grading Policy:

1- Attendance and Participation in class discussion	10%
2- Quizzes (1)	5%
3- Assignment (1)	5%
4- Midterm Examination	20%
5- Project and Exercise with Presentation	20%
6- Final Examination: (as per schedule)	40% ( <u>COMPREHENSIVE</u> )
	<b>100%</b>
	<b>Total</b>

### Grades:

A+	: 95 to 100 %
A	: 90 to < 95%
B+	: 85 to < 90%
B	: 80 to < 85%
C+	: 75 to < 80%
C	: 70 to < 75%
D+	: 65 to < 70%
D	: 60 to < 65%
F	: Below 60 %

**Tests: 45 %**

- Quiz 1, Quiz 2	: Week,11	5 %
- Midterm Exam	: Week 8	20%
- Project and Exercise with Presentation	: Week 1 - 11	20 %

**Final Examination: 40 %**

Final Exam: As per schedule (COMPREHENSIVE)

**Course Description:**

This course addresses the main issues related to software project management such as project definition, scope management, planning, organization, resources, scheduling, control, quality, cost estimation, time estimation, and, risk management. Students are also introduced to project management tools such as Work Breakdown Structure, Gantt charts, PERT, and the critical path method. Topics covered also include project management ethics, and effective project manager skills such as people and leadership skills. Students should get exposed to a software package used for this purpose.

**Course Learning Outcomes:****a) After successful completion of this course, student will be able to-**

1. Understand the need for project management, project life cycle, key elements, project constraints, and skills needed for project manager.
2. Apply the processes, practices, tools and techniques of project management in delivering successful IT projects.
3. Evaluate a project to develop the scope of work, construct WBS, identify the resources required, provide accurate cost estimates, and can use CPM, PERT and GANTT charts to develop project schedule.
4. Understand and use risk management analysis techniques that identify the factors that put a project at risk and to quantify the likely effect of risk on project timescales.
5. Recognize project ethics and perform quality control.

**b) ABET Criterion 3 Student Outcomes addressed by the course:**SO(3) Communicate effectively in a variety of professional contextsSO(4) Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principlesSO(5) Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline**Course Outlines:**

Course Topics	Book's Chapter	Event Name	Week Due
Introduction to Project Management, project life cycle, key elements, project constraints, and skills needed for project manager, project ethics	Chapter 1		Week 1,2
Project Management and Information Technology Context	Chapter2		Week 3
Project Management Processes	Chapter 3	<b>Quiz 1</b>	Week 4
Project Integration Management	Chapter 4		Week 5
Project Scope Management, WBS	Chapter 5	<b>Assignment</b>	Week 6,7
<b>MID TERM EXAMINATIONS</b>		<b>Mid Term</b>	Week 8
Project Time Management, Gantt Charts, PERT, CPM	Chapter 6		Week 9
Project Cost Management	Chapter 7		Week 10
Project Quality Management	Chapter 8		Week 11
Project Human Resource Management	Chapter 9	<b>Quiz 2</b>	Week 11
Project Risk Management, SWOT	Chapter 11		Week 11

Software Packages	Free tools from Internet		Week 11
Review and Discussions			Week 11
<b>FINAL EXAMINATIONS</b>			

### **Attendance and Participation in Class Discussion 10 %**

- Attendance is necessary but not sufficient which means that you must attend mentally as well as physically.
- Regular classroom attendance and regular participation in the class discussion and solving in class problems are essential.
- Successful learning requires good communication between students and instructors.
- This is a Project Management course, covered in 15 weeks, to be successful in this class, you should plan to arrive on time and participate in class discussion, ask questions, make use of the resources available in the library, and complete all homework.
- You should expect to spend several hours a week outside of class time for practice problems, homework, etc.
- Your contribution is to participate in the class activities within the frame work established in the class syllabus.
- You are responsible for your own attendance. If you miss a class, you are responsible for finding the notes and assignments from a classmate.
- If a student is absent for a class due to an acceptable excuse (like death in first family member, accident, hospitalization) or any other strong reason which makes it impossible to attend class, his excuse will be considered under the condition that the student submits the supportive documents within Maximum a Week after his absence.

### **Homework, Quizzes and Chapter Tests:**

- The homework assignments are problems from each section in the textbook.
- Take time to include all the steps when working your homework problems.
- Doing so will organize your thinking and avoid computational errors.
- It will also give you complete step-by-step solutions of the exercises that can be used to study for exams.
- Writing down all the steps and keeping your work organized may also give you a better chance to receive partial credit
- Solution in the exam is the mirror image of your homework.
- NO ACCEPTENCE FOR UNORGANIZED & UNNEAT ASSIGNEMETS.
- Before each class, please complete the homework assigned in the previous class and it is important to study the previous class material to be able to follow and understand the present class.
- Be ready any time for a Quiz as a problem from the Homework.

### **General Notes:**

- PLEASE TURN CELL PHONES OFF DURING CLASS!!! Cell phones, blackberries, iPods, etc. may not be accessed during class.
- The Final Exam will be comprehensive, covering all the material presented in the course
- NO MAKE UP EXAMS (except for what is stated under the "Regulations for Accepting Excuses for Not Attending Exams" section).
- Last day to drop:
- Last day to withdraw without grade penalty:

- Please note fire exit
  - The syllabus is subject to change.
  - For any questions, please email me through my MU Email.
- الرقم: ٦٦/١٨٨٣١ التاريخ: ١٤٤٤/٠٥/١١ عدد الصفحات: \*

### **Regulations for Accepting Excuses for Not Attending Exams:**

1. If Student is absent for Final Exam, Midterm Exam or Class Test due to a strong (like death in first family member, Accident, Hospitalization) or any other strong reason which makes impossible to attend Exam will be considered and student should submit the supportive documents to Vice Dean office within Maximum a Week after completion of the Examination.
2. If a Student is absent in Class Test the Instructor take decision to accept or reject the Excuse submitted by the Student.
3. For Midterm Exam, the decision will be taken by the Vice-Dean for Academic Affair.
4. For Final Exam College Council approval is required.

**Learning Environment:** MU is a place for learning and growing. You should feel safe and comfortable anywhere on campus. To meet this objective, you should:

1. let your Instructor, Vice-Dean or Dean know if any unsafe, unwelcome or uncomfortable situation arises that interferes with the learning process;
2. inform the instructor within the first two weeks of classes if you have special needs that may affect your performance in this course.

**Academic Dishonesty:** When College officials award credit, degrees, and certificates, they must assume the absolute integrity of the work you have done; therefore, it is important that you maintain the highest standard of honor in your scholastic work. The College does not tolerate academic dishonesty. Students who are not honest in their academic work will face disciplinary action along with any grade penalty the instructor imposes. Procedures for disciplinary measures and appeals are outlined in the Student Handbook. In extreme cases, academic dishonesty may result in dismissal from the College. Academic dishonesty, in general, involves one of the following acts:

1. Cheating on an examination or quiz, including the giving, receiving, or soliciting of information and the unauthorized use of notes or other materials during the examination or quiz.
2. Buying, selling, stealing, or soliciting any material purported to be the unreleased contents of a forthcoming examination, or the use of such material.
3. Substituting for another person during an examination or allowing another person to take your place.
4. Plagiarizing means taking credits for another person's work or ideas. This includes copying another person's work either word for word or in a substance without acknowledging the source.
5. Accepting help from or giving help to another person to complete an assignment, unless the instructor has approved such collaboration in advance.
6. Knowingly furnishing false information to the college; forgery and alteration or use of College documents or instruments of identification with the intent to defraud.