Course Specification
(Bachelor)

Course Title:	Engineering Projects Management
Course Code:	CE 4401
Program:	Bachelor of Science in Civil Engineering
Department:	Civil Engineering Department
College:	College of Engineering and Architecture
Institution:	Umm Al-Qura University
Version:	1
Last Revision Date:	31 January 2025

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A. General information about the course:

1. Course Identification

1. Credit hours: (2)					
2. Course type					
A.	☐ University	☒ College	☐ Department	☐ Track	☐ Others
B.	☒ Required		☐ Elective		
3. Level/year at which this course is offered: (.....)					
4. Course General Description:					
This course covers engineering project management concepts and practices from initiation to closeout, including planning, execution, and control. Students will learn analytical and management skills for engineering projects. The course covers project initiation, project selection, work planning, scheduling, tracking, resource allocation, coordination, risk management, leadership, team management, project auditing, and closure.					
5. Pre-requirements for this course (if any)**:**					
Engineering Economy					
6. Co-requisites for this course (if any)**:**					
7. Course Main Objective(s):					
• **Provide students with a comprehensive understanding of project management principles and techniques.** • **Develop skills in project scheduling, resource management, and risk assessment.** • **Apply project control and monitoring methods in engineering projects.** • **Utilize modern project management tools for effective planning and execution.**					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		

No	Mode of Instruction	Contact Hours	Percentage
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30 hrs
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		30

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Explain the fundamental principles of project management, including the project life cycle, initiation, selection techniques, and scheduling methods.	**K1**	Lectures, Case Studies	Written Exams, Quizzes
1.2	Analyze project risks, resource allocation, and stakeholder management to enhance project efficiency and decision-making.	**K2**	Lectures, Problem-Based Learning	Assignments, Reports
2.0	**Skills**			
2.1	Develop project schedules, work breakdown structures (WBS), and resource management plans using industry-standard tools and techniques.	**S1**	Lectures, Practical Demonstrations	Assignments, Reports
2.2	Apply project monitoring and control techniques to track project performance and ensure quality management.	**S2**	Interactive Discussions, Field Visits	Project Reports
2.3	Communicate effectively with	**S3**	Lectures, Case Studies	Presentations

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	stakeholders, manage project risks, and implement auditing and closeout procedures.			
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate ethical and professional responsibility in project planning, execution, and stakeholder engagement.	V1	Lectures, Case Studies	Assignments, Reports
3.2	Apply decision-making and problem-solving strategies to ensure project success while balancing constraints like cost, time, and quality	V2	Lectures, Practical Demonstrations	Assignments, Reports

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Project Management	2
2.	Project Life Cycle and Initiation	2
3	Project Selection Techniques	2
4	Work Breakdown Structure (WBS)	2
5	Project Scheduling Techniques	4
6	Resource Allocation and Management	2
7	Midterm Exam and Review	2
8	Project Risk Identification and Analysis	2
9	Communication and Stakeholder Management	2
10	Project Quality Management	2
11	Project Monitoring and Control	2
12	Project Auditing	2
13	Project Closeout	2
14	Final Review and Exam	2
15	Discussion	2
Total		**30**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Written Exam	5	20

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
2.	Group Project	11	10
3.	Assignments	6	10
4.	Case Study Report	13	10
5.	Final Exam	15	50

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Meredith, J. R., Shafer, S. M., & Mantel, S. J. (2023). Project Management: A Managerial Approach, 11th Edition. Wiley.
Supportive References	Kerzner, H. (2017). Project Management: A Systems Approach to Planning, Scheduling, and Controlling. Wiley.
Electronic Materials	Online resources, project management software
Other Learning Materials	Instructor-prepared notes, research papers

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	The university provide Adequate accommodation
Technology equipment (projector, smart board, software)	Projectors are available in the classroom
Other equipment (depending on the nature of the specialty)	**N/A**

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of Students assessment	Civil engineering Course coordinator	.Direct
Quality of learning resources	Assessment Committee	Direct
The extent to which CLOs have been achieved	Civil engineering Course coordinator	Direct
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	CIVIL ENGINEERING COUNCIL
REFERENCE NO.	THE FIFTEENTH SESSION OF THE ACADEMIC YEAR 1446
DATE	30 APRIL 2025

