Course Specification
(Bachelor)

Course Title:	Special Topics in Projects Management
Course Code:	CE 4407
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: (3)					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	Others
B.	☐Required		☒ Elective		
3. Level/year at which this course is offered: (9, 10)					
4. Course General Description:					
This course explores advanced and contemporary topics in project management as applied to civil engineering projects. Topics include stakeholder engagement, sustainability in project management, advanced project scheduling, digital transformation in project management, integrated project delivery (IPD), and modern project management techniques such as Agile, Lean, and Six Sigma methodologies. The course emphasizes real-world applications, case studies, and industry best practices.					
5. Pre-requirements for this course (if any)**:**					
Department Approval					
6. Co-requisites for this course (if any)**:**					
7. Course Main Objective(s):					
◦ Enhance students' understanding of advanced project management concepts in civil engineering. ◦ Develop the ability to analyze and implement modern project management methodologies. ◦ Apply digital tools and emerging trends in project management. Promote ethical decision-making and sustainability in project management.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%

No	Mode of Instruction	Contact Hours	Percentage
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		45

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 key advanced project management principles and best practices.	K1, K2	Lectures, Case Studies	Written Exams, Quizzes
1.2	Evaluate the role of stakeholder engagement and sustainability in projects.	K2	Lectures, Practical Exercises	Assignments, Reports
2.0	**Skills**			
2.1	Apply advanced scheduling techniques and digital	S1, S2	Group Projects, Simulations	Project Reports, Presentations

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	tools in project planning.			
2.2	Utilize modern project management methodologies such as Agile, Lean, and Six Sigma.	S3	Problem-Based Learning	Case Study Analysis, Reports
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate ethical considerations and sustainability in project decision-making.	V1, V2	Interactive Discussions, Field Visits	Participation, Reports

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Advanced Project Management	3
2.	Stakeholder Engagement Strategies	3
3	Sustainable Project Management Practices (1)	3
4	Sustainable Project Management Practices (2)	3
5	Advanced Project Scheduling and Planning (1)	3
6	Advanced Project Scheduling and Planning (2)	3
7	Digital Transformation in Project Management	3
8	Agile and Lean Project Management in Construction (1)	3
9	Agile and Lean Project Management in Construction (2)	3
10	Integrated Project Delivery (IPD)	3
11	Six Sigma and Continuous Improvement in Projects	3
12	Innovation and Technology in Project Management	3
13	Case Studies of Successful Project Management (1)	3
14	Case Studies of Successful Project Management (2)	3
15	Ethical Considerations and Decision-Making in Projects	3
Total		**45**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Written Exam	Week 5	20%
2.	Group Project	Week 8	15%
3.	Case Study Report	Week 12	15%
4.	Final Exam	Week 16	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	Kerzner, H. (Latest Edition). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling.* Wiley.
Supportive References	PMI. (Latest Edition). *A Guide to the Project Management Body of Knowledge (PMBOK Guide).*
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.)	Equipped with multimedia and projection systems. Computer lab with project management software
Technology equipment (projector, smart board, software)	Smart boards, collaboration tools
Other equipment (depending on the nature of the specialty)	Field visit kits, case study documentation

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Faculty, Students	Surveys, Peer Review
Effectiveness of Students assessment	Faculty	Exam Reviews, Rubric Analysis
Quality of learning resources	Faculty, Students	Feedback Forms, Resource Evaluation
The extent to which CLOs have been achieved	Program Leaders	Performance Reports

Assessment Areas/Issues	Assessor	Assessment Methods
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

