



Course Specification

(Bachelor)

Course Title: **Project Management**

Course Code: **SE3014**

Program:

BSc in Computer Science

BSc in Artificial Intelligence

Department: **Software Engineering**

College: **College of Computing**

Institution: **Umm Al Qura University**

Version: **1.0**

Last Revision Date: **22/04/2025**



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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:

BSc in Computer Science - (4th year/ 7th level or 8th level)
BSc in Artificial Intelligence - (4th year/8 level)

4. Course General Description:

This course covers the main knowledge areas of project management (time, cost, quality, scope, risk, human resources, communications, etc.) by focusing on software projects. It also covers project planning, cost estimation, earned-value analysis techniques and scheduling, project management tools, factors influencing productivity and success, productivity metrics, analysis of options, risk management and dynamic adjusting of project plans, planning for change, management of expectations, software contracts and intellectual property, approaches to maintenance and long-term software development, standards in project management, such as ISO10006, ISO12207, along with CMM model will be also discussed. Case studies of real industrial projects will be discussed.

5. Pre-requirements for this course (if any):

BSc in Computer Science: SE1201 - Foundation of Software Engineering
BSc in Artificial Intelligence: AI3101 Principles and Techniques of AI

6. Co-requisites for this course (if any):

7. Course Main Objective(s):

Upon successful completion of this course, you will be able to:

1. Describe the basic principles of, and terminology of project management.
2. Understand feasible project plans applying appropriate concepts in software estimation, resourcing, scheduling and software risk management.
3. Demonstrate appropriate communication skills and technologies in project management settings.
4. Gain basic project management principles to achieve project success.
5. Apply a team-based collaborative approach to software project management and enhance the probability of project success.



6. Apply project control techniques that help find solutions to problems.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	٤٥	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> • 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 (Bachelor of Science in Computer Science)

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify foundation topics of project management in software engineering.	K2	Lecture, exercise, and group discussion	Quiz, exams, assignments
1.2	Explain the stages in the system development lifecycle and the activities	K2	Lecture, exercise, and group discussion	Quiz, exams, assignments





Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	that are carried out to manage software project.			
1.3	Explain the ways in which appropriate quality attributes of the products of a software development project can be assessed and assured and how to manage risk.	K2	Lecture, exercise, and group discussion	Quiz, exams, assignments
2.0	Skills			
2.1	Apply basic project management principles to achieve project success	S ²	Lecture, Group discussion	Assignments, project
2.2	Reflect on project management experience to conduct a post-project evaluation.	S3	Lecture, Group discussion	Assignments, project
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate appropriate communication skills and technologies in project management settings	V1	Lecture, Group discussion	Assignments, project
3.2	Apply a team-based collaborative approach to software project management and enhance the probability of project success	V3	Lecture, Group discussion	Assignments, project

Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods (Bachelor of Science in Artificial Intelligence)

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			



Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.1	Identify foundation topics of project management in software engineering.	K1	Lecture, exercise, and group discussion	Quiz, exams, assignments
1.2	Explain the stages in the system development lifecycle and the activities that are carried out to manage software project.	K2	Lecture, exercise, and group discussion	Quiz, exams, assignments
1.3	Explain the ways in which appropriate quality attributes of the products of a software development project can be assessed and assured and how to manage risk.	K2	Lecture, exercise, and group discussion	Quiz, exams, assignments
2.0	Skills			
2.1	Apply basic project management principles to achieve project success	S2	Lecture, Group discussion	Assignments, project
2.2	Reflect on project management experience to conduct a post-project evaluation.	S3	Lecture, Group discussion	Assignments, project
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate appropriate communication skills and technologies in project management settings	V1	Lecture, Group discussion	Assignments, project
3.2	Apply a team-based collaborative approach to software project management and enhance the probability of project success	V2	Lecture, Group discussion	Assignments, project



C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to IT Project Management	3
2.	The Project Management and Information Technology Context	4
3.	The Project Management Process Groups	4
4.	Project Integration Management	4
5.	Project Scope Management	4
6.	Project Schedule Management	4
7.	Project Cost Management	3
8.	Project Quality Management	4
9.	Project Human Resource and Stakeholder Management	4
10.	Project Communications Management	4
11.	Project Risk Management	4
12.	Project Procurement Management	3
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	4-9	10
2.	Assignments	2-14	15
3.	Projects	2-14	15
4.	Mid Term	7	20
5.	Final Exam	16-17	40

*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	<ul style="list-style-type: none"> Schwalbe, K. (2019). <i>Information technology project management</i> (9th ed.). Cengage Learning.
Supportive References	<ul style="list-style-type: none"> Project Management Institute. (2021). <i>A guide to the project management body of knowledge (PMBOK® guide)</i> (7th ed.). Project Management Institute.





	<ul style="list-style-type: none"> • Kaur, M. (2019). <i>Software project management</i>. Lovely Professional University. • Murray, A. P. (2016). <i>The complete software project manager: Mastering technology from planning to launch and beyond</i>. Wiley. • Villafiorita, A. (2014). <i>Introduction to software project management</i>. CRC Press.
Electronic Materials	<ul style="list-style-type: none"> • Alenezi, M. (2023). <i>Software project management</i> [Course materials]. Prince Sultan University. Retrieved from https://malenezi.github.io/malenezi/SE423/#schedule
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
Technology equipment (projector, smart board, software)	Projector
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct, Indirect
Effectiveness of Students' assessment	Faculty, Peer reviewer	Direct, Indirect
Quality of learning resources	Faculty, Course coordinator	Direct, Indirect
The extent to which CLOs have been achieved	Course coordinator, Program management committee	Direct
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

Council /Committee	SOFTWARE ENGINEERING DEPARTMENT COUNCIL
Reference No.	THE 17 TH MEETING FOR THE ACADEMIC YEAR 1446H
Date	22/04/2025





Council / Committee	Computer Science and Artificial Intelligence Department Council
Reference No.	THE 16 TH MEETING FOR THE ACADEMIC YEAR 1446H
Date	22/04/2025

