هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	**Software Project Management**
Course Code:	**COMP472**
Program:	**Computer Science**
Department:	**Computer science**
College:	**College of Engineering and Computer Science**
Institution:	**Jazan University**
Version:	V2
Last Revision Date:	**14 November 2023**

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A. General information about the course:

Course Identification					
1. Credit hours:					
2. Course type					
a.	University ☐	College ☐	Department☒	Track☐	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered:	8/4				
4. Course general Description This course covers the key aspects of Software Project Management. It covers software project planning and evaluation techniques. The course also teaches how to plan and manage projects at each stage of the software development life cycle. Students will study project planning, activity planning and risk management. Students will also learn project management and control, staffing in software projects, managing people, organizational behavior, best methods of staff selection.					
5. Pre-requirements for this course (if any): Software Engineering (COMP 371)					
6. Co- requirements for this course (if any): NA					
7. Course Main Objective(s) 1. Understand Project Management principles while developing software. 2. Gain extensive knowledge about the basic project management concepts, framework and the process models. 3. Obtain adequate knowledge about software process models and software effort estimation techniques. 4. Estimate the risks involved in various project activities. 5. Apply different techniques in monitoring and control of project and people. 6. Learn staff selection process and the issues related to people management					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	60	100%
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning		

No	Mode of Instruction	Contact Hours	Percentage
4.	Distance learning		

2. Contact Hours **(based on the academic semester)**

No	Activity	Contact Hours
1.	Lectures	28
2.	Laboratory/Studio	28
3.	Field	
4.	Tutorial	
5.	Others (specify)	4
	Total	60

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	**Define** the key principles and concepts of project management	K1	• Lectures/Presentations • Media Lectures	• Assignment- 1 • Mid Term Exam • Final Theory Exam
1.2	**Identify** techniques for requirements, policies and decision making for effective resource management	K1	• Lectures/Presentations • Media Lectures	• Assignment- 1 • Mid Term Exam • Final Theory Exam
2.0	Skills			
2.1	**Estimate** project cost and perform cost-benefit evaluation among projects.	S1	• Lectures /Presentations • Media Lectures Tutorials	• Assignment - 1 • Assignment 2 • Final Theory Exam • Final Lab
2.2	**Develop** comprehensive project plans, including work breakdown structures, schedules, and resource allocation	S4	• Lectures /Presentations • Media Lectures • Tutorials • Lab Demonstration	• Assignment - 1 • Assignment 2 • Final Theory Exam • Final Lab Exam
2.3	**Apply** schedule and cost control techniques for project monitoring including contract management.	S4	• Lectures /Presentations • Media Lectures	• Group Assignment • Final Theory Exam • Final Lab Exam
2.4	**Implement** quality models within software projects to	S1	• Lectures/Presentations	• Assignment 2 • Final Theory • Final Lab

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	uphold and ensure the quality and reliability of the software.		• Media Lectures	
3.0	Values, autonomy, and responsibility			
3.1	**Demonstrate** the ability to work as a team member to accomplish common goals.	V2	• Group Discussion	Assignment 2

C. Course Content

No	List of Topics	Contact Hours
1.	**Introduction to Project Management** Project, Project Attributes, Examples of IT Projects, Project Constraints, Project Management, Project Stakeholders, Project Management Knowledge Areas, Project Management Tools and Techniques, Project Success, Program and Project Portfolio Management, Programs, Project Portfolio Management, The Role of the Project Manager, Project Manager Job Description, Suggested Skills for Project Managers, The Project Management Profession	4T+4P
2.	**Project Management Information Technology & Project Management Process** A Systems View of Project Management, Systems Approach, The Three-Sphere Model for Systems Management, Understanding Organizations, Four Frames of Organization Virtual Teams Project Management Process Groups, Mapping the Process Groups to the Knowledge Areas, Developing an It Project Management Methodology, Project Pre-Initiation and Initiation, Pre-Initiation Tasks, Initiating, Project Planning, Project Execution, Project Monitoring and Controlling, Project Closing	4T+4P
3	**Project Integration Management** Strategic Planning and Project Selection , Project Integration Management, Strategic Planning, Identifying Potential Projects , Aligning	4T+4P

	IT with Business Strategy , Methods for Selecting Projects ,Focusing on Broad Organizational Needs , Categorizing IT Projects , Performing Financial Analyses ,Using a Weighted Scoring Model , Implementing a Balanced Scorecard , Developing a Project Charter , Developing a Project Management Plan , Project Management Plan Contents , Using Guidelines to Create Project Management Plans , Directing and Managing Project Work , Coordinating Planning and Execution , Providing Strong Leadership and a Supportive Culture , Capitalizing on Product, Business, and Application Area Knowledge , Project Execution Tools and Techniques , Monitoring and Controlling Project Work , Performing Integrated Change Control, Change Control on IT Projects ,Change Control System , Closing Projects or Phases , Using Software to Assist in Project Integration Management	
4	**Project Scope, Time and Cost Management** Project Scope Management, Planning Scope Management, Collecting Requirements, Defining Scope, Creating the Work Breakdown Structure, Approaches to Developing Work Breakdown Structures, The WBS Dictionary, Advice for Creating a WBS and WBS Dictionary, Validating Scope, Controlling Scope, Suggestions for Improving User Input, Suggestions for Reducing Incomplete and Changing Requirements, Using Software to Assist in Project Scope Management Importance of Project Schedules, Planning Schedule Management , Defining Activities , Sequencing Activities , Dependencies , Network Diagrams , Estimating Activity Resources , Estimating Activity Durations , Developing the Schedule , Gantt Charts , Adding Milestones to Gantt Charts , Using Tracking Gantt Charts to Compare Planned and Actual Dates , Critical Path Method , Calculating the Critical Path , Growing Grass Can Be on the Critical Path , Using Critical Path Analysis to Make Schedule Trade-Offs , Using the Critical Path to Shorten a Project Schedule , Importance of Updating Critical Path Data , Critical Chain Scheduling Program Evaluation and Review Technique Agile and Time Management Controlling the Schedule Project Cost Management, Basic Principles of Cost Management, Planning Cost Management, Estimating Costs, Types of Cost Estimates, Cost Estimation Tools and Techniques, Typical Problems with IT Cost Estimates, How to Develop a Cost Estimate, Determining the Budget, Controlling Costs, Earned Value Management	6T+6P
5	**Project Quality and Human Resource Management** Importance of Project Quality Management, Planning Quality Management, Performing Quality Assurance, Controlling Quality, Tools and Techniques for Quality Control	4T+4P

	Importance of Human Resource Management, Keys to Managing and Leading People, Motivation Theories, Influence and Power, Covey and Improving Effectiveness, Emotional Intelligence Leadership, Developing the Human Resource Plan, Project Organizational Charts, Responsibility Assignment Matrices, Staffing Management Plans and Resource Histograms, Acquiring the Project Team, Resource Assignment, Developing the Project Team, Managing the Project Team	
6	**Project Communications and Risk Management** Importance of Project Communications Management, Keys to Good Communications, Communication Channels, Planning Communications Management, Managing Communications, Controlling Communications Importance of Project Risk Management, Planning Risk Management, Common Sources of Risk on IT Projects, Identifying Risks, Suggestions for Identifying Risks, The Risk Register, Performing Qualitative Risk Analysis, Monitoring and Controlling Risks	4T+4P
7	**Project Procurement and Stakeholder Management** Importance of Project Procurement Management, Planning Procurement Management, Controlling Procurements, Closing Procurements Importance of Project Stakeholder Management, Identifying Stakeholders, Planning Stakeholder Management, Managing Stakeholder Engagement, Controlling Stakeholder Engagement	2T+2P
Total		28T + 28P

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Assignment-1	3rd Week	10%
2.	Mid Exam	8th Week	15%
3.	Assignment 2(Group Assignment)	12th Week	15%
5	Final Lab Exam	15th Week	10%
6	Final Theory Exam	As per schedule	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	• Kathy Schwabe: Information Technology Project Management, Edition 8e 2016, Publisher: Course Technology ISBN-13: 978-1285452340
Supportive References	• Bob Hughes, Mike Cotterell and Rajib Mall, "Software Project Management", 6th Edition, Tata McGraw Hill International Edition, ISBN 13: 9789387067189, 2017. • Andrew Stellman & Jennifer Greene, "Applied Software Project Management", O'Reilly Media, 2005.
Electronic Materials	• www.javatpoint.com/software-project-management • www.softwareprojects.org/ • www.projectreference.com/
Other Learning Materials	Online Tutorial

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom equipped with projector, whiteboard, and sufficient seating arrangements. Lab with software installed and individual computer terminal for each student.
Technology equipment (projector, smart board, software)	Whiteboards and projectors for classroom and lab Following software for lab work: MS Project
Other equipment (depending on the nature of the specialty)	None

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of student's assessment	CRC / QAU / HOD	Direct (Course reports / result analysis)
Quality of learning resources	Track leaders / CRC	Indirect (Review, meetings and star rating with suggestions for further modification and improvements)
The extent to which CLOs have been achieved	CRC / QAU	Direct (CLO assessment template further verified at

Assessment Areas/Issues	Assessor	Assessment Methods
		course coordinator, Track leader and QAU level)
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	DEPARTMENT COUNCIL
REFERENCE NO.	
DATE	15/10/22