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# Course Outline

## Project Management for Engineering and Technology

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13 Jun 2025

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

Syllabus

Chapter 1: Overview of Project Management

Chapter 2: Roles and Responsibilities of Project Managers

Chapter 3: Project Initiation

Chapter 4: Project Planning — The Schedule

Chapter 5: Project Planning — The Cost Estimate and Budget

Chapter 6: Project Planning — HR, Communication, Procurement, and Quality Plans

Chapter 7: Project Planning — The Risk Management Plan

Chapter 8: Project Execution — Build the Project Team

Chapter 9: Project Execution — Procurements

Chapter 10: Project Monitoring and Control

Chapter 11: Project Closeout

Chapter 12: Project Managers as Team Leaders

Chapter 13: Project Managers as Motivators

Chapter 14: Communicating, Influencing, and Negotiating

Chapter 15: Project Managers and Time Management

Chapter 16: Project Managers and Change

Chapter 17: Project Managers and Diversity

Chapter 18: Project Managers and Adversity

Videos and How To

9. Practice Test

Here's what you get

Features

10. Post-Assessment

## 1. Course Objective

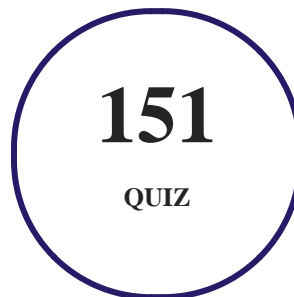
Use the Project Management for Engineering and Technology course to gain knowledge and skills required to work with project management techniques such as negotiation, personal time management, change management, diversity, and overcoming adversity. This project management training course is intended for project managers and reflects the latest standards in the "Project Management Body of Knowledge" (PMBOK). The course imparts the skills that are required for the project managers to work as team leaders and motivators.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

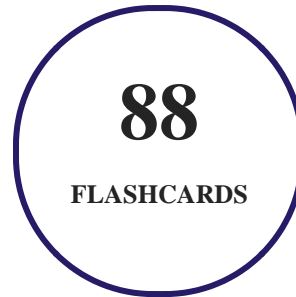
## 3. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



## 4. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



## 5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
  1. Best Postsecondary Learning Solution
- **2015**
  1. Best Education Solution

2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

## Syllabus

### Chapter 1: Overview of Project Management

- Project Defined
- Need for Project Managers
- Essential Elements of a Project
- Internal Versus External Projects
- Speaking the Language of Project Management
- Project Success Criteria
- People Skills in Project Management



- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 2: Roles and Responsibilities of Project Managers

- The Project Manager's Functions
- Process Functions of Project Managers
- People Functions of Project Managers
- Characteristics of an Effective Project Manager
- Functional, Matrix, and Project-Based Organizations
- Project Management Certifications
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 3: Project Initiation

- Outcomes of the Project Initiation Phase

- Project Description
- Project Feasibility Analysis
- Project Concept Document
- Project Charter
- Stakeholder Register
- Project Kickoff Meeting
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activity

## Chapter 4: Project Planning — The Schedule

- Benefits of Planning and Scheduling
- The Planning and Scheduling Process
- Developing the Work Breakdown Structure
- Key Facts About Developing a WBS
- The WBS Dictionary
- Enterprise Environmental Factors

- Estimating Activity Duration and Sequencing Activities
- Displaying the Project Schedule
- The CPM Network Diagram
- Scheduling Software and Combined Schedule Formats
- Summary
- Key Terms and Concepts
- Review Questions
- Application activities

## Chapter 5: Project Planning — The Cost Estimate and Budget

- The Cost Estimate
- Costs To Be Included in Estimates
- Estimating Methods
- Estimating Products
- The Budget
- Summary
- Key Terms and Concepts
- Review Questions

- Application Activities

## Chapter 6: Project Planning — HR, Communication, Procurement, and Quality Plans

- The Human Resource Plan
- The Communication Plan
- Procurement Plan
- The Quality Management Plan
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 7: Project Planning — The Risk Management Plan

- Risk Defined
- Risk Management Defined
- Classifications of Risk Factors
- Risk As It Relates to Project Success Criteria
- Risk Identification Process

- Qualitative Risk Analysis
- Quantitative Risk Analysis
- Quantitative Analysis Tools
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 8: Project Execution — Build the Project Team

- Teambuilding Defined
- Common Mission: The Basis of Effective Teamwork
- Building the Project Team
- Explaining the Roles of Team Members
- Explain How the Team is Supposed to Operate
- Four-Step Model for Building Effective Teams
- Evaluating Teambuilding Activities
- Initiating the Team's Work
- Teams should be Coached

- Handling Conflict in Teams
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 9: Project Execution — Procurements

- Procurement Methods
- Preparing an RFP or RFQ Package
- Bonds, Addenda, and Alternates
- Contracts for Subcontractors and Materials Suppliers
- Evaluating Bidders and Bids
- Ethics in Procurement
- Summary
- Key terms and concepts
- Review questions
- Application Activities

## Chapter 10: Project Monitoring and Control

- Monitoring and Controlling Scope
- Monitoring and Controlling the Schedule
- Monitoring and Controlling Costs
- Earned Value Management
- To-Complete Performance Index
- Performance Reviews
- Cost Monitoring and Control Software
- Quality Monitoring and Control Methods
- Monitoring and Controlling Risk
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 11: Project Closeout

- Steps in the Project Closeout Process
- Verify the Scope
- Close Out the Contract

- Close Out the Administrative Aspects of the Project
- Conduct a Lessons-Learned Review
- Develop the Project Closeout Report
- Recognize Team Members
- Complete the Final Step
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 12: Project Managers as Team Leaders

- Leadership Defined
- Influencing Team Members
- Eight Cs of Leadership for Project Managers
- Caring and Leadership
- Competence and Leadership
- Character and Leadership
- Communication and Leadership



- Clarity and Leadership
- Commitment and Leadership
- Courage and Leadership
- Credibility and Leadership
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activity

## Chapter 13: Project Managers as Motivators

- Motivation Defined
- Motivational Context
- Basic Survival Needs and Motivation
- Safety and Security Needs and Motivation
- Social Needs and Motivation
- Esteem Needs and Motivation
- Self-Actualization Needs and Motivation
- Developing Personal Motivation Plans

- Additional Motivation Strategies
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 14: Communicating, Influencing, and Negotiating

- Begin with a Communication Plan
- Communication Skills can be Learned
- Communication Defined
- Communication is a Process
- Not All Communication is Effective
- Factors that can Inhibit Communication
- Listening Well Improves Communication
- Nonverbal Communication
- Verbal Communication
- Communicating Corrective Feedback
- Written Communication

- Influencing and Negotiating in Project Management
- Negotiation Defined
- Characteristics of Effective Negotiators
- Preparation and Successful Negotiations
- Conducting Negotiations
- After Agreeing—Follow Through
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 15: Project Managers and Time Management

- Poor Time Management and Team Performance
- Common Time Management Problems and their Solutions
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 16: Project Managers and Change

- Change Management Model for Project Managers
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 17: Project Managers and Diversity

- Diversity Defined
- Diversity-Related Concepts
- Prejudice is Learned Behavior that can be Unlearned
- Overcoming Prejudice and Embracing Diversity
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

## Chapter 18: Project Managers and Adversity

- Do Not Give Up and Never Quit
- Face Adversity and Overcome It
- Accept Adversity as a Normal Part of Life
- Accept that Life can be Unfair
- Help Team Members who are Facing Adversity
- Dealing with Micromanagers who create Problems
- Summary
- Key Terms and Concepts
- Review Questions
- Application Activities

11.



## Practice Test

**Here's what you get**

54

PRE-ASSESSMENTS QUESTIONS

60

POST-ASSESSMENTS QUESTIONS

## Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 12. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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