

# Cert Guide

Stand out with a project management certification



Practice  
Tests



Flash  
Cards



Review  
Exercises



Study  
Planner

# Project Management Professional (PMP)<sup>®</sup>



GREGORY M. HORINE  
ASAD E. HAQUE

# **Project Management Professional (PMP)<sup>®</sup> Cert Guide**

ISBN: 978-0-13-791893-5

**See inside ►►►**

**for your Pearson Test Prep activation code  
and special offers**

# **Project Management Professional (PMP)® Cert Guide**

## **Table of Contents**

Cover

# **Table of Contents**

Title Page

Copyright Page

Contents at a Glance

Table of Contents

Introduction

Chapter 1: The PMP Exam: How to



Pearson

# **Table of Contents**

Prepare and Pass

Who Is PMI?

Changes to the PMBOK® Guide,  
Seventh Edition

The System for Value Delivery

The Twelve Project Management Principles

Project Performance Domains

# **Table of Contents**

Tailoring

Models, Methods, and Artifacts

The PMP Application Process

What Is the PMP Exam Like?

Types of Questions

PMP Exam Content Outline

Changes to the New Exam

# **Table of Contents**

Scheduling at a Pearson Vue Testing  
Center

Scheduling an Online Proctored Exam

Study Tips and Exam-Taking  
Strategies

Common Conceptual Gaps

Common Experience Gaps

# **Table of Contents**

Common Terminology Gaps

What Is Important to PMI?

Key PMI Assumptions

PMP Exam Content Outline

Chapter 2: Project Management

101

Do I Know This Already? Quiz



Pearson



# **Table of Contents**

Foundation Topics

Core Project Management Concepts

What Is a Project Exactly?

Comparing Projects and Products

Functions Associated with Projects

Managing Projects

What Is the Value of Project Management?

# Table of Contents

Why Are Projects Challenging?

The Project Manager

One Title, Many Roles

Key Skills of Project Managers

Qualities of Successful Project Managers

15 Common Mistakes of Project Managers

Project Manager vs. Scrum Master vs.

Product Owner

# **Table of Contents**

Project Management Fundamentals

Project Life Cycle

Project Environment

System for Value Delivery

Stakeholders

Organizational Environment

Functional Organizational Structure

# **Table of Contents**

Matrix Organizational Structure (Weak,  
Balanced, Strong)

Project-Oriented Organizational Structure

Other Organizational Factors

PMO

External Factors

Exam Preparation Tasks



Pearson

# **Table of Contents**

Review All Key Topics

Define Key Terms

Review Questions

## **Chapter 3: Development Approach and Life Cycle Performance**

Do I Know This Already? Quiz

Foundation Topics



Pearson

# **Table of Contents**

Development Approach and Project  
Life Cycle Fundamentals

Project Life Cycle and Phases

Product Life Cycle and Project Management  
Process Groups

Delivery Cadence

Development Approach Options

Development Approach Spectrum

# Table of Contents

Incremental and Iterative: Whats the  
Difference?

Adaptive Approach

Development Approach Selection

Deliverable Variables

Project Variables

Organizational Variables

Relationship Between Project



Pearson

# **Table of Contents**

Deliverables, Delivery Cadence,  
Development Approach, and Project  
Life Cycle

Important Notes for the PMP Exam

Project Life Cycle: Development Approach  
Illustrations

Community Center Project Example from  
PMBOK® Guide, Seventh Edition



# **Table of Contents**

Hybrid Project Life Cycles

Impact on Other Project Factors

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

Chapter 4: Starting a Project and



Pearson

# **Table of Contents**

## Integration

Do I Know This Already? Quiz

Foundation Topics

What Is Integration Management?

Initiating a Project

Develop Project Charter

Key Artifacts of Developing the Project Charter



Pearson

# **Table of Contents**

Business Documents

The Project Charter

Project Overview Statement

Assumption Log

Planning a Project

Subsidiary Management Plans

Baselines

# **Table of Contents**

Additional Components

Executing the Project

What Is Business Value?

What Does Project Success Mean?

Direct and Manage Project Work

Manage Project Knowledge

Monitoring and Controlling the Project

# Table of Contents

Integrated Change Control

Key Artifact of Integrated Change

Control: Change Management Plan

Key Artifact of Integrated Change

Control: Configuration Management

Change Control in an Adaptive Environment

Exam Preparation Tasks

Review All Key Topics

# **Table of Contents**

Define Key Terms

Review Questions

## **Chapter 5: Stakeholder Engagement**

Do I Know This Already? Quiz

Foundation Topics

Stakeholder Management



Pearson

# **Table of Contents**

## Identify Stakeholders

Common Tools and Techniques for  
Identifying Stakeholders

Stakeholder Grid

Salience Model

Direction of Influence

Common Artifact: The Stakeholder Register

## Plan Stakeholder Engagement



Pearson

# **Table of Contents**

Stakeholder Engagement Assessment Matrix

Stakeholder Engagement Plan

Manage Stakeholder Engagement

Monitor Stakeholder Engagement

Exam Preparation Tasks

Review All Key Topics

Define Key Terms



# **Table of Contents**

Review Questions

## **Chapter 6: Project Scope**

Do I Know This Already? Quiz

Foundation Topics

What Is Scope Management?

Planning Scope Management

Key Artifacts of Plan Scope Management



Pearson

# **Table of Contents**

Scope Management Plan

Requirements Management Plan

Key Tools and Techniques of Plan Scope  
Management

Collecting Requirements

Key Tools and Techniques of Collect  
Requirements

Key Artifacts of Collect Requirements

# Table of Contents

Requirements Documentation

Requirements Traceability Matrix

## Scope Definition

Key Tools and Techniques of Define Scope:

Product Analysis

Key Artifact of Define Scope: Scope

Statement

## The Work Breakdown Structure (WBS)



Pearson

# **Table of Contents**

Key Tool and Technique for Creating WBS:  
Decomposition

Key Artifact of Creating the WBS: The  
Scope Baseline

Validate Scope

Control Scope

Agile Considerations for Scope

# **Table of Contents**

## Management

Product Backlog

User Story

Agile Prioritization Techniques

Agile Consensus-Gathering Techniques

Agile Estimation Techniques

T-shirt Sizing

Story Pointing

# **Table of Contents**

Planning Poker

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

Chapter 7: Project Schedule

Do I Know This Already? Quiz



Pearson

# **Table of Contents**

Foundation Topics

Plan Schedule Management

Key Artifact: Schedule Management Plan

Define Activities

Sequence Activities

Precedence Diagramming Method (PDM)

Precedence Relationships



Pearson

# **Table of Contents**

Activity Dependencies

Leads and Lags

Estimate Durations

Estimating Methods

Three-Point Estimating

The Advantages and Disadvantages of the  
Predictive Estimating Techniques

The Predictive and Adaptive Estimating



Pearson



# **Table of Contents**

## Methods

### Develop and Control the Schedule

Key Artifacts in Developing the Schedule

Key Tools for Developing the Schedule

Resource Optimization Techniques

Schedule Compression Techniques

Monte Carlo

Network Diagramming and the Critical Path



Pearson

# **Table of Contents**

Method (CPM)

Zero Method

One Method

Comparing the Zero Method and the One  
Method

Three Types of Floats

Monitoring and Controlling the Schedule

Schedule Management Considerations



Pearson

# **Table of Contents**

for Agile

Agile Release Planning

Spikes

Agile Schedule Approach

Exam Preparation Tasks

Review All Key Topics

Define Key Terms



Pearson

# **Table of Contents**

Review Questions

## **Chapter 8: Project Cost**

Do I Know This Already? Quiz

Foundation Topics

Plan Cost Management

Define Key Terms

Other Cost Considerations



Pearson

# Table of Contents

Key Artifact of Plan Cost Management:  
Cost Management Plan

Agile Considerations

## Estimate Costs

Key Tools for Estimating Cost

Estimating Methods: Predictive

Estimating Methods: Adaptive

Reserve Analysis

# **Table of Contents**

Determine Budget

Key Tool: Cost Aggregation

Key Tool: Funding Limit Reconciliation

Control Costs

Exam Preparation Tasks

Review All Key Topics

Review Questions

# **Table of Contents**

## Chapter 9: Managing Resources and the Team

Do I Know This Already? Quiz

Foundation Topics

Planning For and Acquiring Project  
Resources

Key Processes



Pearson

# **Table of Contents**

Plan Resource Management

Estimate Activity Resources

Acquire Resources

Key Artifacts and Tools

Pre-Assignment Tools

SWOT Analysis

Training

Resource Management Plan



# **Table of Contents**

Team Charter

Resource Requirements

Resource Breakdown Structure (RBS)

Responsibility Assignment Matrix (RAM)

Resource Calendars

## **High-Performing Teams**

Characteristics of High-Performing Teams

# **Table of Contents**

Team Development Models

Tuckman Ladder

Drexler/Sibbet Team Performance Model

Management Principles to Maximize Team  
Performance

Techniques for Better Team Performance

Project Leadership

# **Table of Contents**

More Than Managing

Where Leadership Is Needed on a Project

Leadership Skills

Establishing and Maintaining Vision

Critical Thinking

Motivation

Emotional Intelligence

Decision-Making

# **Table of Contents**

Conflict Management

Influencing

Negotiation

Recognizing the Value of Diversity, Equity, and  
Inclusion

Keys to Better Project Leadership

Servant Leadership Approach

Special Project Situations



Pearson

# **Table of Contents**

Techniques for Challenging Project Team  
Situations

Techniques for Leading Cross-Cultural  
Projects

Techniques for Leading Virtual Projects

Forms of Power

Exam Preparation Tasks

Review All Key Topics

# **Table of Contents**

Define Key Terms

Review Questions

Chapter 10: Project

Communications

Do I Know This Already? Quiz

Foundation Topics

Plan Communications Management



Pearson

# **Table of Contents**

The Importance of Project Communications

Key Tools and Techniques of Plan

Communications Management

Communication Model

Communication Requirements Analysis

Communication Methods

Communication Technology

Key Artifact: Communication Management

# **Table of Contents**

Plan

Manage Communications

Communication Skills

Active Listening

Barriers and Enhancers of Communication

Other Types of Communication

Number of Communication Channels

Creating Project Artifacts



# **Table of Contents**

Guidelines for Facilitating Meetings

Monitor Communications

Agile Approach to Communication

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

# **Table of Contents**

## Chapter 11: Project Quality

Do I Know This Already? Quiz

Foundation Topics

Introduction to Quality

Definition of Quality

Five Levels of Increasing Effective  
Quality Management



Pearson

# **Table of Contents**

Grade versus Quality

Building Quality into Processes and Deliverables

Continuous Improvement

Quality Control versus Quality Assurance

Agile Approach to Quality Management

Plan Procurement Management

Plan Quality Management



Pearson

# Table of Contents

Compliance

Key Artifact: Quality Management Plan

Key Artifact: Quality Metrics

Key Tool and Technique: Cost of Quality

Manage Quality

Key Tools and Techniques of Manage  
Quality

Key Artifact of Manage Quality: Quality Report



Pearson

# **Table of Contents**

## Control Quality

Key Tool and Techniques of Control  
Quality

Inspection

Pareto Chart

Root Cause Analysis

Scatter Diagram

Control Charts



Pearson

# **Table of Contents**

Statistical Sampling

Value Stream Map

Checklist and Check Sheet

## **Other Quality Terms**

Validate versus Verify

Kaizen

Precision versus Accuracy

# **Table of Contents**

Quality Theories

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

Chapter 12: Project Procurement

Do I Know This Already? Quiz



Pearson

# **Table of Contents**

Foundation Topics

Plan Procurement Management

Centralized vs. Decentralized Contracting

Components of a Contract

Types of Contracts

Contracts in a Predictive Environment

Contracts in an Adaptive Environment



# **Table of Contents**

Key Tools and Techniques of Plan  
Procurement Management

Make or Buy Analysis

Source Selection Analysis

Key Artifacts of Plan Procurement  
Management

Procurement Management Plan

Procurement Strategy

# **Table of Contents**

Bid Documents

Procurement Statement of Work

Conduct Procurement

Key Tools and Techniques of Conduct  
Procurement

Advertising

Bidders Conferences

Proposal Evaluation

# **Table of Contents**

Other Important Procurement Terms

Control Procurement

Key Tools and Techniques of Control  
Procurement

Performance Reviews and Inspections

Audit

Contract Change Control System

Claims Administration

# **Table of Contents**

Closing Procurements

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

Chapter 13: Uncertainty

Do I Know This Already? Quiz



Pearson

# **Table of Contents**

Foundation Topics

Uncertainty and Risk Management  
Overview

Risk Definition and Sources of Risk

Risks Versus Issues

Threats and Opportunities

Risk Classifications and Types



Pearson

# **Table of Contents**

Risk Appetite, Risk Threshold, and Risk  
Tolerance

Risk Management Planning

Key Risk Management Artifacts

Risk Register

Risk Report

Risk Identification and Analysis

# **Table of Contents**

Identifying Risks

Qualitative Risk Analysis

Quantitative Risk Analysis

Expected Monetary Value

Simulation

Sensitivity Diagrams

Influence Diagrams

Decision Tree

# **Table of Contents**

## Risk Response Planning

Strategies for Addressing Threats

Strategies for Addressing Opportunities

Strategies for Addressing General  
Uncertainty

Strategies for Addressing Ambiguity

Strategies for Addressing Complexity

Stacey Complexity Model



# **Table of Contents**

Systems-Based Complexity

Reframing Complexity

Process-Based Complexity

Strategies for Addressing Volatility

Other Risk Response Planning Notes and  
Terms

Risk Response Implementation and

# **Table of Contents**

Risk Monitoring

Implementing Risk Responses

Monitoring Risks

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

# **Table of Contents**

## Chapter 14: Project Measurement

Do I Know This Already? Quiz

Foundation Topics

Project Measurement

Performance Measurement and  
Monitoring and Controlling

Effective Measurements and Metrics



Pearson

# **Table of Contents**

## Monitoring and Controlling a Project Performance Tracking Tools and Artifacts

Kanban Board

Burndown Chart

Burnup Chart

Cumulative Flow Diagram

# **Table of Contents**

Information Radiator

Stakeholder Satisfaction Measurements

Business Value Measurements

Other Performance Tracking Tools and  
Artifacts

Earned Value Management (EVM)

Sample Exercise for EVM

Exam Preparation Tasks



Pearson

# **Table of Contents**

Review All Key Topics

Define Key Terms

Review Questions

## **Chapter 15: Closing a Project**

Do I Know This Already? Quiz

Foundation Topics

Reasons for Project Closure



Pearson

# **Table of Contents**

Closing Activities

Key Artifacts of Closing

Transition Readiness

Benefits Realization

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

# **Table of Contents**

Review Questions

Chapter 16: More Things to Know

Do I Know This Already? Quiz

Foundation Topics

Tailoring

What to Tailor?

Life Cycle and Development Approach



Pearson



# **Table of Contents**

Leadership Styles

Process Tailoring

Engagement

Tools, Methods, and Artifacts

Way of Working (WoW)

Performance Domains

The Tailoring Process

Step 1: Select the Initial Development

# Table of Contents

Approach

Step 2: Tailor for the Organization

Step 3: Tailor for the Project

Step 4: Make Continuous Improvements

Organizational Change Management

Plan for Change

Change Models

Managing Change in Organizations: A

# **Table of Contents**

Practice Guide

ADKAR® Model

Additional Change Models

Kotters 8-Step Model

Virginia Satir Model

Transition Model

Summary of the Roles on a Project

# **Table of Contents**

Exam Preparation Tasks

Review All Key Topics

Define Key Terms

Review Questions

Chapter 17: Final Preparation

Exam Technique

1. Read the Last Sentence First



Pearson

# Table of Contents

- 2. Learn to Pick Out Key Words and Phrases
- 3. Pick the Best Option
- 4. Eliminate Bad Options
- 5. Recognize When Only One Option Addresses the Question
- 6. Understand Predictive Versus Agile
- 7. Understand Real-World Terminology

# **Table of Contents**

Versus PMI Terminology

8. Use the Correct Terminology in the  
Right Context

9. Understand the Purpose of All  
Documents

10. Follow All PMI Processes

11. Be Aware of Other Considerations

Study Plan and Tips

# **Table of Contents**

Appendix A: Answers to the Do  
I Know This Already? Quizzes  
and Review Questions

Appendix B: Project Management  
Professional (PMP) Cert Guide  
Exam Updates

Glossary of Key Terms



Pearson

# Table of Contents

A

B

C

D

E

F

G



# **Table of Contents**

J

K

L

M

N

O

P

# **Table of Contents**

Q

R

S

T

U

V

W

# **Table of Contents**

Z

Index

Online Elements

Appendix C: Memory Tables

Appendix D: Memory Tables Answer Key

Appendix E: Study Planner

Glossary of Key Terms



Pearson

# **Table of Contents**

A

B

C

D

E

F

G

J



Pearson

# **Table of Contents**

K

L

M

N

O

P

Q

R



Pearson

# **Table of Contents**

S

T

U

V

W

Z