

## **Project Risk Management**

### **Course Summary**

#### **Description**

This course focuses on the uncertainty that surrounds any project. Project Risk Management is designed to have the participant learn core project risk management concepts and best practices, and learn tools that are used to proactively manage project risk. During the course, "best practices" will be introduced, and put into context through various exercises and scenarios and case studies.

#### **Objectives**

At the end of this course, students will be able to:

- Discuss the processes of Project Risk Management and a project manager's role in this activity.
- Discuss why projects are unsuccessful due to inadequate risk management, and how project teams can address this shortcoming.
- List and discuss the impact risks have on project success criteria and common categories for project risk.
- Discuss and apply the process for developing a Risk Management Plan.
- Discuss and apply techniques for identifying a project's risks.
- Discuss techniques assessing and analyzing risks, both qualitatively and quantitatively.
- Compare different risk response strategies for proactively dealing with both threats, but also opportunities.
- Identify and apply techniques for proactively monitoring and dealing with risk throughout the project life cycle.
- Use Lessons Learned regarding risk management to continuously improve the Risk Management Plan.

#### **Topics**

- Introduction to Project Risk Management
- Project Risk Management
- Plan Risk Management
- Identify Risks
- Project Risk Assessment
- Plan Risk Responses
- Monitor and Control Risks
- Continuous Improvement

#### **Audience**

This course is intended for both project team members and project managers wishing to gain a fluent working knowledge of commonly accepted best practices for planning and mitigation of project risks. Team members and managers looking to improve their risk management skills and looking to improve their understanding of how risks impact project success and how they can be proactively managed should take this course. Students on a track to take the PMP examination should take this course.

#### **Prerequisites**

It is recommend that students have some working knowledge or experience in working in a project environment, or have completed a foundations course in project management.

#### **Duration**

##### **Two days**

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### **Course Outline**

#### **I. Introduction to Project Risk Management**

- A. Session Overview
- B. Introductions
- C. Course Objectives
- D. Exercise – The Domino Project

#### **II. Project Risk Management**

- A. What is a Project Risk?
- B. Risk Management vs. Issues Management
- C. What happens if you don't Manage Risks?
- D. Exercise – Identify typical project risks
- E. Practical Risk Management Guidelines
- F. Process Model for Project Risk Management
- G. PMBOK® Guide Project Risk Management Processes
- H. Sample Project Case Study

#### **III. Plan Risk Management**

- A. Project Subsidiary Management Plans
- B. Components of a Risk Management Plan
- C. Risk Utility
- D. Risk Management Planning Meeting
- E. Project Risk Categories
- F. The Risk Breakdown Structure
- G. Exercise: Develop a Risk Breakdown Structure
- H. Meeting Guidelines
- I. Exercise: Risk Management Planning Meeting

#### **IV. Identify Risks**

- A. Process Approach to Risk Management
- B. Identify Risks tools and techniques
  - 1. Brainstorming
  - 2. Crawford Slip Adaptation
  - 3. Risk Syntax
- C. The Risk Register
- D. Exercise – Identify Project Risks

#### **V. Project Risk Assessment**

- A. Why Assess and Rank Risks?
- B. Risk Assessment
- C. Frequency or Risk Assessments
- D. Perform Qualitative Risk Analysis
  - 1. Risk Probability of Occurrence
  - 2. Risk Impacts to Project Objectives
  - 3. Using a Probability Impact Grid (PIG)
- E. Exercise – Assess Project Risks using a PIG
- F. Perform Quantitative Risk Analysis

#### **G. Tools and Techniques for Perform Quantitative Risk Analysis**

- 1. Sensitivity Analysis
- 2. Expected Monetary Value (EMV) Analysis
- 3. Decision Tree Analysis

#### **H. Exercise – Perform a Decision-Tree Analysis**

- 1. Monte Carlo Simulation
- I. Sample – Monte Carlo Simulation

#### **VI. Plan Risk Responses**

- A. Risk Response goals
- B. Plan Risk Responses Tools and Techniques
- C. Responses for Threats
- D. Responses for Opportunities
- E. Acceptance as a Response
  - 1. Risk Response Strategies
  - 2. Risk Triggers
  - 3. Residual Risks
  - 4. Secondary Risks
  - 5. Contingency Reserves
- F. Developing the Risk Response Plan
- G. Exercise – Develop a Risk Response Plan

#### **VII. Monitor and Control Risks**

- A. Risk Monitoring
- B. Risk Control
- C. Monitor and Control Risks Tools and Techniques
  - 1. Risk Audits
  - 2. Variance and Trend Analysis
  - 3. Reserve Analysis
  - 4. Status Meetings
- D. Tracking and Reporting on project risk
- E. Exercise – Perform a Risk Re-Assessment

#### **VIII. Continuous Improvement**

- A. Lessons Learned
- B. Improving the Risk Management Plan
- C. Project Issues
- D. Issues Management
- E. Process Flow for Issues Management
- F. Capstone Exercise – Perform Risk Management Activities on a short case study
- G. Course Summary
- H. Course Review