

ITT Technical Institute
PM453
Project Risk Management
Onsite Course

SYLLABUS

Credit hours: 4

Contact/Instructional hours: 50 (30 Theory Hours, 20 Lab Hours)

Prerequisite(s) and/or Corequisite(s):

Prerequisites: PM341 Project Cost and Budget Management or equivalent, EC421 E-Commerce Legal and Security Issues or PM342 Project Procurement and Contract Management or equivalent, PM352 Project Quality Management or equivalent

Course Description:

This course examines identifying, analyzing and responding to project risk. It will address techniques to anticipate, prevent and alleviate major project risks.

Syllabus: Project Risk Management

Instructor:	_____
Office hours:	_____
Class hours:	_____

Major Instructional Areas

1. Risk Management Planning
2. Risk Identification
3. Risk Analysis
4. Risk Response Planning
5. Risk Monitoring and Control

Course Objectives

1. Create a risk management plan that outlines the overall approach for managing risks in a project.
2. Apply risk identification techniques to identify and document positive and negative risks in a project.
3. Analyze the impact of positive and negative risks on a project.
4. Develop options and actions to enhance opportunities and reduce threats to project objectives.
5. Evaluate the impact of changes on the risk monitoring and control process for a project.
6. Apply the Project Management Body of Knowledge (PMBOK) and Project Management Institute (PMI) standards in managing project risks.

SCANS Objectives

SCANS is an acronym for Secretary's Commission on Achieving Necessary Skills. The committee, created by the National Secretary of Labor in the early 1990s, created a list of skills and competencies that the committee feels are necessary for employees to function in a high-tech job market.

1. Analyze a given situation with the intent of identifying risks and implications.
2. Analyze information and communicate the results in the written format.
3. Demonstrate ability to recognize job tasks and delegate roles and responsibilities.
4. Demonstrate problem solving skills by developing plans of action.
5. Analyze situations and adjust existing plans of action.
6. Interpret information and prepare various reports.
7. Analyze given reports to derive implications.

Course Outline

Note: All graded activities, except the Project, are listed below in the pattern of <Unit Number>.<Assignment Number>. For example, Lab 2.1 refers to the 1st lab activity in Unit 2.

Unit	Activities
1—Introduction to Risk Management	<ul style="list-style-type: none"> • Content Covered: <ul style="list-style-type: none"> <i>Project Manager's Spotlight on Risk Management:</i> <ul style="list-style-type: none"> ○ Chapter 3, "Why Projects Fail—More Risks and How You Can Prevent Them," pp. 61-91 ○ Chapter 1, "What Is Risk Management?," pp. 1-25 <i>A Guide to the Project Management Body of Knowledge:</i>

Unit	Activities
	<ul style="list-style-type: none"> ○ Chapter 11, "Project Risk Management," pp. 273-276 ● Writing Assignments: 1.1 ● Labs: 1.1
2—Risk Management Planning	<ul style="list-style-type: none"> ● Read from <i>A Guide to the Project Management Body of Knowledge</i>: <ul style="list-style-type: none"> ○ Chapter 11, Section 11.1, "Plan Risk Management," pp. 276-282 ● Read from <i>Project Manager's Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Appendix B, "Risk Management Templates," p. 207 ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 9, "Project processes and plans," pp. 105-108 ○ Chapter 14, "Contracts and risk allocation" ● Writing Assignments: 2.1 ● Labs: 2.1
3—Risk Identification & Documentation	<ul style="list-style-type: none"> ● Read from <i>A Guide to the Project Management Body of Knowledge</i>: <ul style="list-style-type: none"> ○ Chapter 11, Section 11.2, "Identify Risks" ● Read from <i>Project Manager's Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 2, "Identifying and Documenting Risks," pp. 29-58 ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 11, "Managing opportunities," pp. 126-127 ● Labs: 3.1
4—Risk Identification Within Scope and Time Knowledge Area	<ul style="list-style-type: none"> ● Read from <i>Project Manager's Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 4, "Preventing Scope and Schedule Risks" ○ Appendix B, "Risk Management Templates," pp. 204-206 ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 3, "Risk identification," pp. 42-44 ● Labs: 4.1
5—Qualitative Risk Analysis	<ul style="list-style-type: none"> ● Read from <i>Project Manager's Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 5, "Analyzing and Prioritizing Risks," pp. 123-136, section titled "Qualitative Risk Analysis" ● Read from <i>A Guide to the Project Management Body of Knowledge</i>: <ul style="list-style-type: none"> ○ Chapter 11, Section 11.3, "Perform Qualitative Risk Analysis" ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 11, "Managing opportunities," pp. 127-129 ○ Chapter 4, "Qualitative risk assessment," pp. 46-48 ● Analyses: 5.1 ● Labs: 5.1 ● Course Project Part I
6—Quantitative Risk Analysis	<ul style="list-style-type: none"> ● Read from <i>Project Manager's Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 5, "Analyzing and Prioritizing Risks," pp. 136-146 ● Read from <i>A Guide to the Project Management Body of Knowledge</i>: <ul style="list-style-type: none"> ○ Chapter 11, Section 11.4, "Perform Quantitative Risk Analysis" ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 5, "Semi-quantitative risk assessment" ● Exam 1 ● Analyses: 6.1 ● Labs: 6.1
7—Risk Response Planning	<ul style="list-style-type: none"> ● Read from <i>Project Manager's Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 6, "Defining Risk Response Plans," pp. 149-160 ● Read from <i>A Guide to the Project Management Body of Knowledge</i>:

Unit	Activities
	<ul style="list-style-type: none"> ○ Chapter 11, Section 11.5, “Plan Risk Responses” ● Labs: 7.1 ● Course Project Part II
8—Development of a Risk Response Plan	<ul style="list-style-type: none"> ● Read from <i>Project Manager’s Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 6, “Defining Risk Response Plans,” pp.160-170 ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 6, “Risk treatment” ● Labs: 8.1
9—Risk Monitoring and Control—I	<ul style="list-style-type: none"> ● Read from <i>Project Manager’s Spotlight on Risk Management</i>: <ul style="list-style-type: none"> ○ Chapter 7, “Implementing and Monitoring Risk Response Plans” ● Read from <i>A Guide to the Project Management Body of Knowledge</i>: <ul style="list-style-type: none"> ○ Chapter 11, Section 11.6, “Monitor and Control Risks” ● Analyses: 9.1 ● Labs: 9.1 ● Course Project Part III
10—Risk Monitoring and Control—II	<ul style="list-style-type: none"> ● Read from <i>A Guide to the Project Management Body of Knowledge</i>: <ul style="list-style-type: none"> ○ Chapter 4, Section 4.5, “Perform Integrated Change Control” ● Read from <i>Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements</i>: <ul style="list-style-type: none"> ○ Chapter 7, “Monitoring and review” ○ Chapter 9, “Project processes and plans” ● Exam 2 ● Labs: 10.1 ● Course Project Part IV
Unit 11—Course Review and Presentation	<ul style="list-style-type: none"> ● Course Project Part V ● Course Review

Instructional Methods

This course involves the study and application of project risk management processes.

The structure of this course is designed to match the chronological order of the risk management process. The course begins by introducing you to the basic concepts associated with project risk management and the methods used to identify and document possible risks in a project. First, you create a risk management plan that is used to monitor and control projects risks. Next, you analyze the impact of negative risks on a project and study how positive risks can be used to make profits. Then, you create a risk response plan to handle risks that materialize in the project. Finally, you identify the steps for monitoring and evaluating project risks.

PMBOK processes for managing risks are integrated throughout the entire course. Chapter 11, “Project Risk Management” in the PMBOK guide covers methods of identifying and analyzing project risks. It includes risk response planning and monitoring and control processes that are required to enhance opportunities and to reduce the threats of negative risks on project objectives. The integrated change control process described in Section 4.5 of Chapter 4, “Project Integration Management” in the PMBOK guide is performed during the entire lifecycle of a project. This process includes change management activities required for managing changes. Risk monitoring and control processes interact with the integrated change control process from project inception through completion.

The instructional strategies for the course include the following:

- The first unit of this course begins by explaining why projects fail. This strategy is used to familiarize you with the need for managing risks in a project. Teaching tips for this course will involve the use of discussions based on real-life case studies that will familiarize students with the various aspects of managing risks in a project. Examples and case studies interspersed throughout the text are used to support the conceptual discussions.
- Lab exercises include hands-on assignments designed to reinforce concepts covered in the respective units. Labs will involve analysis of case studies and preparation of various project management plans, such as the risk management plan and the risk response plan, for managing project risks. During the lab work, you will learn to use various tools and templates for creating the necessary documents required for managing projects. These templates are provided on pages 203-209 in Appendix B, "Risk Management Templates" of the textbook *Project Manager's Spotlight on Risk Management*. Some of the labs are interlinked, and they build from one unit to another, enabling you to go through the actual phases of risk management. You will use Microsoft Project to develop plans and track project progress as part of the lab activities.
- Analysis questions are assigned as homework and help build on the ideas and concepts covered in classroom sessions and labs. These questions are based on situations that a project manager is likely to face in the workplace. Analysis questions are included in Units 5, 6, and 9 of the course.
- The course contains writing assignments in Units 1, and 2. These assignments are designed at a comprehension level and help reinforce the students' understanding of the basic concepts and approaches related to risk management.
- The course consists of two exams—Exam 1 and Exam 2—that test the knowledge you acquire from the course content. These exams consist of scenario-based, application-level questions and are conducted in Units 6 and 10. The exams provide a means for evaluating the students' understanding of the concepts covered across multiple units.
- As a course-level assessment, the course project consists of a comprehensive case study that ties together all the major concepts covered in the course. The course project is divided into five parts with deliverables in Units 5, 7, 9, 10, and 11. You can work on the course project in teams of 3-4 students.
- Unit 11 concludes with a graded presentation by each project team where they share their key learning from the project with their peers.

Instructional Materials and References

Student Textbook Package

- Cooper, Dale, Stephen Grey, Geoffrey Raymond, and Phil Walker. *Project Risk Management Guidelines: Managing Risk in Large Projects and Complex Procurements*. Chichester, England: John Wiley & Sons Ltd., 2005.
- Heldman, Kim. *Project Manager's Spotlight on Risk Management*. Alameda, CA: Harbor Light Press, 2005.

Other Required Resources

In addition to the student textbook package, the following is also required in this course:

A Guide to the Project Management Body of Knowledge (PMBOK® Guide). 4th ed. Newtown Square, Pennsylvania: Project Management Institute, Inc., 2008.

(This book is normally issued with the course: Introduction to Project Management. If students have not registered for that course the book will be issued in this course.)

Equipment and Tools

- Microsoft Project 2007

References

ITT Tech Virtual Library

Log on to the ITT Tech Virtual Library at <http://www.library.itt-tech.edu/> to access online books, journals, and other reference resources selected to support ITT Tech curricula.

Books

You may click “Books” or use the “Search” function on the home page to find the following books.

Books 24x7

- Apgar, David. *Risk Intelligence: Learning to Manage What We Don't Know*. Boston, MA: Harvard Business School Publishing, 2006.
- Hiles, Andrew N. *Enterprise Risk Assessment and Business Impact Analysis: Best Practices*. Brookfield, CT: Rothstein Associates, 2002.
- Hutson, Harry, and Barbara Perry. *Putting Hope to Work: Five Principles to Activate Your Organization's Most Powerful Resource*. Westport, CT: Greenwood Press, 2006.
- Kendrick, Tom. *The Project Management Tool Kit: 100 Tips and Techniques for Getting the Job Done Right*. AMACOM, 2004.
- Labbi, Abderrahim. *Handbook of Integrated Risk Management for E-Business: Measuring, Modeling, and Managing Risk*. FL: J. Ross Publishing, Inc, 2005.
- Marrison, Chris. *The Fundamentals of Risk Measurement*. NY: The McGraw-Hill Companies, Inc, 2002.
- Martin, Duncan. *Managing Risk in Extreme Environments: Front-line Business Lessons for Corporates and Financial Institutions*. Philadelphia, PA: Kogan Page, 2008.
- Pandian, Ravindranath C. *Applied Software Risk Management: A Guide for Software Project Managers*. NY: Auerbach Publications Taylor & Francis Group, 2007.
- Parrett, William G. *The Sentinel CEO: Perspectives on Security, Risk, and Leadership in a Post-9/11 World*. Hoboken, NY: John Wiley & Sons, 2007.
- Waters, Donald. *Supply Chain Risk Management: Vulnerability and Resilience in Logistics*. PA: Kogan Page, 2007.

Reference Resources

You may click “Reference Resources” or use the “Search” function on the home page to find the following reference resources.

Project Management

- Microsoft Project
- Project Management Forum
- Project Management Institute
- The Project Management WWW Site

Program Links

You may click “Program Links” or use the “Search” function on the home page to find the following program links.

Business Administration - Project Management (BBAPM) > Professional Organizations

- American Society for the Advancement of Project Management
- International Association of Project & Program Managers
- International Project Management Association
- International Research Network on Organizing by Projects
- National Management Association

Business Administration - Project Management (BBAPM) > Recommended Links

- Business: Management: Project and Program Management
- ganttthead.com
- Project Magazine
- Project Management World Today
- Projects@Work

Other References

The following resources may be found **outside** of the ITT Tech Virtual Library, whether online or in hard copy.

Web sites

- 4PM: This Web site provides training and tutorials on project management. It also contains articles on project management and some career advice from project managers around the world.
<http://www.4pm.com/> (accessed September 30, 2008).
- TechRepublic: This Web site contains white papers, webcasts, and downloads material on project risk management.
<http://search.techrepublic.com.com/index.php?q=project+risk+management> (accessed September 30, 2008).

All links to Web references outside of the ITT Tech Virtual Library are always subject to change without prior notice.

Course Evaluation and Grading

Evaluation Criteria Table

The final grades will be based on the following categories:

CATEGORY	WEIGHT
Labs	20%
Analyses	20%
Writing Assignments	10%
Exams	15%
Course Project Part I	5%
Course Project Part II	5%
Course Project Part III	10%
Course Project Part IV	10%
Course Project Part V	5%
Total	100%

Note: Students are responsible for abiding by the Plagiarism Policy.

Grade Conversion Table

The final grades will be calculated from the percentages earned in the course, as follows:

A	90–100%	4.0
B+	85–89%	3.5
B	80–84%	3.0
C+	75–79%	2.5
C	70–74%	2.0
D+	65–69%	1.5
D	60–64%	1.0
F	<60%	0.0

(End of Syllabus)