

ITT Technical Institute
PM341
Project Cost and Budget Management
Onsite Course

SYLLABUS

Credit hours: 4

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

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

Prerequisites: GE127 College Mathematics I or equivalent, PM332 Project Management Techniques or equivalent

Course Description:

This course provides the theory and techniques related to project cost management including the processes of cost estimating, budgeting resources, monitoring and controlling. Students will apply techniques provided in Project Management Techniques to facilitate scheduling, estimate tracking and control a project to meet the schedule and budget requirements.

Syllabus: Project Cost and Budget Management

Instructor: _____

Office hours: _____

Class hours: _____

Major Instructional Areas

1. Project cost estimating
2. Project cost budgeting
3. Project cost control
4. Cash flow management
5. Financial management
6. Value management
7. Change management

Course Objectives

1. Explain the importance of cost and value management in projects.
2. Create a cost management plan, as a part of a project management plan, for managing costs in a project.
3. Apply the cost estimation process to achieve project goals and objectives.
4. Establish a cost baseline by applying the cost budgeting process.
5. Analyze project performance by applying the cost control process.
6. Analyze the integration of the processes of project cost and value management to achieve project success.
7. Analyze the importance of cash flow management in the context of cost management.
8. Identify the role of financial management in effective management of project costs and cash flow.
9. Examine the role of value management in the context of managing costs and enhancing value of projects.
10. Examine the importance of change management in systematically controlling changes in a project.

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 project to identify the overall cost implications.
2. Demonstrate problem-solving skills by developing plans of action.
3. Demonstrate an ability to collate, analyze, interpret, and communicate project information.
4. Demonstrate an ability to develop budget proposals, monitor project accounts, and forecast financial resources and expenditures.
5. Demonstrate a distinct ability to perceive and manage the available resources optimally, focusing on project deliverables.

Course Outline

Note: All graded activities, except the Course Project, are listed below in the pattern of <Unit Number>.<Assignment Number>. For example, Lab 1.1 refers to the 1st lab activity in Unit 1.

Unit	Activities
1—Introduction to Cost and Budgeting	<ul style="list-style-type: none"> • Content Covered: <ul style="list-style-type: none"> <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 1, "Introduction to the Challenge of Cost and Value Management in Projects," pp. 1-9 ○ Chapter 2, "Project Needs Assessment, Concept Development, and Planning," pp. 17-22 <i>A Guide to the Project Management Body of Knowledge:</i> <ul style="list-style-type: none"> ○ Chapter 7, "Project Cost Management," pp. 165-188 • Labs: 1.1
2—Cost Estimation I	<ul style="list-style-type: none"> • Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 2, "Project Needs Assessment, Concept Development, and Planning," pp. 28-41 ○ Chapter 3, "Cost Estimation," pp. 43-50 • Read from <i>A Guide to the Project Management Body of Knowledge:</i> <ul style="list-style-type: none"> ○ Chapter 7, "Project Cost Management," pp. 168-174 • Labs: 2.1
3—Cost Estimation II	<ul style="list-style-type: none"> • Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 3, "Cost Estimation," pp. 51-64 • Read from <i>A Guide to the Project Management Body of Knowledge:</i> <ul style="list-style-type: none"> ○ Chapter 7, "Project Cost Management," Section 7.1.2, "Estimate Costs: Tools and Techniques," and Section 7.1.3, "Estimate Costs: Outputs" • Labs: 3.1 • Writing Assignments: 3.1
4—Cost Budgeting	<ul style="list-style-type: none"> • Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 4, "Project Budgeting" • Read from <i>A Guide to the Project Management Body of Knowledge:</i> <ul style="list-style-type: none"> ○ Chapter 7, "Project Cost Management," Section 7.2, "Determine Budget" • Labs: 4.1 • Course Project Part 1
5—Project Cost Control	<ul style="list-style-type: none"> • Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 5, "Project Cost Control," pp. 105-111 • Read from <i>A Guide to the Project Management Body of</i>

Unit	Activities
	<p><i>Knowledge:</i></p> <ul style="list-style-type: none"> ○ Chapter 7, "Project Cost Management," Section 7.3, "Control Costs" <ul style="list-style-type: none"> ● Labs: 5.1
6—Earned Value Management	<ul style="list-style-type: none"> ● Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 5, "Project Cost Control," pp. 111-125 ● Labs: 6.1
7—Cash Flow and Financial Management	<ul style="list-style-type: none"> ● Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 6, "Cash Flow Management," pp. 127-137 ○ Chapter 7, "Financial Management in Projects," pp. 149-154 ● Labs: 7.1 ● Writing Assignments: 7.1 ● Course Project Part 2
8—Value Management	<ul style="list-style-type: none"> ● Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 8, "Value Management," Section 8.3, "Overview of Value Management," and pp. 171-174 ● Labs: 8.1 ● Writing Assignments: 8.1
9—Change Management	<ul style="list-style-type: none"> ● Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 9, "Change Control and Configuration Management," Section 9.1, "Causes of Changes," Section 9.5, "The CM Process," Section 9.7, "Change Control Procedure and Configuration Control," and Section 9.8, "Responsibility for the Control of Changes" ● Labs: 9.1 ● Writing Assignments: 9.1
10—Project Cost and Value Integration	<ul style="list-style-type: none"> ● Read from <i>Cost and Value Management in Projects:</i> <ul style="list-style-type: none"> ○ Chapter 12, "Integrating Cost and Value in Projects," pp. 255-257, Section 12.3, "Sources and Strategies for Integrating Cost and Value in Projects," and Section 12.5, "The Project Cost and Value Integration Process" ● Read from <i>A Guide to the Project Management Body of Knowledge:</i> <ul style="list-style-type: none"> ○ Chapter 4, "Project Integration Management," pp. 71-102 ● Labs: 10.1 ● Writing Assignments: 10.1
11—Course Review and Presentation	<ul style="list-style-type: none"> ● Course Project Part 3 ● Course Review

Instructional Methods

This course involves the study and application of project cost management processes and the relationship of these processes with other project management knowledge areas. The course has been designed along the lines of *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Fourth Edition.

The structure of this course matches the chronological order of the cost management process. The course begins by introducing the subject of project management and then moves on to project cost management, covering the processes of cost estimating, cost budgeting, and cost control. The course also covers earned value management (EVM) and other important conceptual learning topics, such as cash flow management and financial management. Toward the end of the course, students will be exposed to the concepts of value and change management. These concepts, although peripheral to the main subject, are within the ambit of project management. Covering these concepts in this course will help students understand their role in managing project costs and enhancing project value.

PMBOK processes for managing project costs are integrated throughout the course. Chapter 7, "Project Cost Management," in the *PMBOK Guide* covers methods of estimating project costs, developing budgets, and controlling project costs. The integrated change control process described in Chapter 4, "Project Integration Management," in the *PMBOK Guide* is performed during the entire life cycle of a project. This process includes change management activities required for managing changes. Cost management processes interact with the integrated change control process from project inception through completion.

The instructional strategies for the course include the following:

- The course will begin with an introduction covering the need and importance of cost management. The course will then explain how cost management fits into the overall map of project management as outlined by the *PMBOK Guide*.
- This course mainly covers the third edition of the *PMBOK Guide*. However, some students might have the fourth edition of this book. Therefore, to cater to all students' needs, just-in-time information will be provided to students wherever there is a difference in coverage in the third and fourth editions. Each unit will contain tips for the instructor to share relevant just-in-time information with students.
- Assignments in this course will involve the use of figures, tables, examples, and templates from the textbook, *Cost and Value Management in Projects*. Some of the assignments will present scenarios and case studies that students will work upon.
- Labs are designed to complement and reinforce the topics covered in the respective units. Labs will hone the skills of comprehension, analysis, application, documentation, and planning in an integrated manner. Students will apply various PMBOK tools and techniques to manage project costs.
- The writing assignments in the course involve a thorough analysis and documentation of various concepts, including cash flow and change management.
- As a course-level assessment, the course project consists of three parts, with deliverables in Units 4, 7, and 11. Each part adds on to the previous part, which will enable students to comprehend the cost management process progressively.
- Unit 11 concludes with the submission of course project part 3 that includes a graded presentation by students divided into project teams. In their presentations, the teams will share with their peers their key learning from the course and the course project. The presentations will need to explain any assumptions that students might have made while creating various project documents in this course. Students can also include details of the research work they performed to collect information for working on assignments in this course and the problems they encountered in the process. Preparing and conducting presentations will be an important part of students' careers as project managers. Therefore, this presentation will help students enhance their communication skills and, at the same time, learn from other students' experiences.

Instructional Materials and References

Student Textbook Package

Venkataraman, Ray R., and Jeffrey K. Pinto. *Cost and Value Management in Projects*. Hoboken, NJ: John Wiley & Sons, Inc., 2008.

Other Required Resources

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

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

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

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.

Books24x7

- Budd, Charles I., and Charlene Spoede Budd. *A Practical Guide to Earned Value Project Management*. VA: Management Concepts, Inc., 2005.
- Cleland, David I., and Lewis R. Ireland (eds). *Project Manager's Handbook: Applying Best Practices Across Global Industries*. PA: The McGraw-Hill Companies, Inc., 2008.
- Fleming, Quentin W., and Joel M. Koppelman. *Earned Value Project Management*. 3rd ed. PA: Project Management Institute, 2005.
- Kendrick, Tom. *The Project Management Tool Kit: 100 Tips and Techniques for Getting the Job Done Right*. NY: AMACOM, 2004.
- Kozak-Holland, Mark. *Project Lessons from The Great Escape (Stalag Luft III)*. 1st ed. Canada: Multi-Media Publications, Inc., 2007.
- Project Management Institute. *Practice Standard for Earned Value Management*. PA: Project Management Institute, Inc., 2005.
- Portny, Stanley E. *Project Management For Dummies*. 2nd ed. IN: John Wiley & Sons, 2007.
- Richman, Larry. *Improving Your Project Management Skills*. NY: AMACOM, 2006.
- Shim, Jae K., and Joel G. Siegel. *Budgeting Basics and Beyond*. 3rd ed. Hoboken, NY: John Wiley & Sons, Inc., 2009.
- Sherman, Eliot H. *Finance and Accounting for Nonfinancial Managers*. 2nd ed. NY: AMACOM, 2006.
- Young, Trevor L. *The Handbook of Project Management: A Practical Guide to Effective Policies, Techniques and Processes*. Revised 2nd ed. PA: Kogan Page, 2007.

Reference

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

Project Management

- Microsoft Project 2007
- Project Management Forum
- Project Management Institute
- The Project Management WWW Site

School Of Study

You may click "School Of Study" or use the "Search" function on the home page to find the following resources.

School of Information Technology> Professional Organizations

- American Society for the Advancement of Project Management
- International Association of Project and Program Management
- International Project Management Association
- Project Management Institute

School of Business> Recommended Links

- Business: Management: Project and Program Management
- gantthead.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.

Book

- Government Extension to a Guide to the Project Management Body of Knowledge (PMBOK® Guide). Project Management Institute, 2006.

Web site

- 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 April 13, 2009).

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	25%
Writing Assignments	20%
Course Project Part 1	15%
Course Project Part 2	20%
Course Project Part 3	20%
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