

# **EC314T**

## **Project Cost and Budget Management**

### **[Onsite]**

#### **Course Description:**

The purpose of this course is to provide the student with an introduction to the specific accounting concepts and budgeting skills necessary for the continuous monitoring of a project during its lifecycle. The student is to identify, master and put into practice the skills necessary to budget, control and report financial cost information to all parties involved in a project.

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

Prerequisites: EC312T Project Management Techniques, GE127T College Mathematics I or equivalent

**Credit hours: 4**

**Contact hours: 60 (36 Theory Hours, 24 Lab Hours)**

# SYLLABUS: Project Cost and Budget Management

Instructor: \_\_\_\_\_

Office hours: \_\_\_\_\_

Class hours: \_\_\_\_\_

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## MAJOR INSTRUCTIONAL AREAS

1. Budget and Cost documentation
2. Cost Estimating (Task-based estimating or activity-based estimating)
3. Understanding basic budgeting principles
4. Project Cost Control

## COURSE OBJECTIVES

After successful completion of this course, the student will have the opportunity to:

1. Review the process approach to project management.
2. Describe the important financial statements that are used by project managers for decision-making.
3. Perform economic analysis of a given situation.
4. Analyze different scenarios on the basis of life-cycle cost (LCC) and related components.
5. Evaluate a project on the basis of relevant analysis to determine its feasibility.

6. Implement project scheduling to complete a project.
7. Manage a project budget.
8. Analyze the effects of project cost control on the basis of earned value approach (EVA) analysis.
9. Research and obtain information from ITT Tech Virtual Library to analyze the Project Cost and Budget Management concepts.

## Related SCANS Objectives

1. Allocate, utilize, and manage material and human resources effectively.
2. Organize and maintain information to maximize retention and expression of knowledge.
3. Work effectively as a part of a team.
4. Work cooperatively with others and contributes to group with ideas, suggestions, and effort
5. Acquire, organize, analyze, and communicate information.
6. Utilize interpersonal skills and communication techniques.
7. Demonstrate competence in applying technology to task.
8. Apply decision-making skills to specify goals and constraints, find the best alternatives, while always considering risks.

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## TEACHING STRATEGIES

The curriculum is designed to promote a variety of teaching strategies that support the outcomes described in the course objectives and that foster higher cognitive skills. Delivery makes use of various media and delivery tools in the classroom.

This is not an accounting class. The goal is to show how to apply the data. However, the students may need review of some basic math skills accounting concepts. While time can be taken for a general review, some students may need extra tutoring. Students must take the responsibility to request help as needed.

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## **COURSE RESOURCES**

### **Student Textbook Package**

- Shtub, Avraham, Jonathan F. Bard, and Shlomo Globerson. *Project Management: Processes, Methodologies, and Economics, Second Edition*. Upper Saddle River, NJ: Prentice Hall, 2005.

### *Issued in EC311 (to be used as a reference)*

- *Guide to the Project Management Body of Knowledge, 3<sup>rd</sup> ed. PMBOK Guide Newtown Square, PA: Project Management Institute, 2004 used in previous courses.*

## References and Resources

### ITT Tech Virtual Library

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

#### ■ ITT Tech Virtual Library > Books > Ebrary >

The following books are related to this course and are available through the ITT Tech virtual Library:

- Baine, Kenneth. *Integrated IT Project Management: A Model-Centric Approach*. Nashville, TN: Artech House, Incorporated, 2004
- Brandon, Dan. *Project Management for Modern Information Systems*. Parker, CO: IRM Press, 2005.
- Chin, Gary. *Agile Project Management: How to Succeed in the Face of Changing Project Requirements*. NY: AMACOM, 2003.
- Faulconbridge, Ian and Michael Ryan. *Managing Complex Technical Projects: A Systems Engineering Approach*. Nashville, TN: Artech House, Incorporated, 2002.
- Fioravanti, Fabrizio. *Skills for Managing Rapidly Changing IT Projects*. Parker, CO: IRM Press, 2005.
- Lerner, Joel J. *Bookkeeping and Accounting*. The McGraw-Hill Companies, 2004.

- Mott, Graham. *Accounting for Non-Accountants (6th Edition)*. Kogan Page, Limited, 2005.
- Rosen, Anita. *Effective IT Project Management: Using Teams to Get Projects Completed on Time and under Budget*. AMACOM, 2004.
- Schuh, Peter. *Integrating Agile Development in the Real World*. Rockland, MA: Charles River Media, 2004.
- Taylor, James. *Managing Information Technology Projects: Applying Project Management Strategies to Software, Hardware, and Integration Initiatives*. NY: AMACOM, 2003.
- Webb, Alan. *Using Earned Value: A Project Manager's Guide*. Gower Publishing Limited, 2003.
- Westney, Richard E. *The Engineer's Cost Handbook: Tools for Managing Project Costs*. Marcel Dekker Incorporated, 1997.

■ **ITT Tech Virtual Library > Periodicals > EBSCOhost > EBSCOhost Databases>**

- B to B, Crain Communications Inc.

Presents business marketing news, strategy & tactics; emphasizes techniques & methods of advertising & selling products & services to business & industry. All aspects of tools & business marketing are explored, such as audio-visual, video etc.

- Cost Engineering, AACE International

Covers topics such as applied cost engineering and applied cost and schedule control.

- **International Journal of Project Management**, Elsevier Science Publishers B.V.

Offers wide ranging & comprehensive coverage of all facets of project management. Its scope includes project management concepts & methods, project controls, tools & training and motivation, techniques, management, contract law, project economics.

- **Journal of Public Budgeting, Accounting & Financial Management**, PrAcademics Press

Theories and practices which frame the fields of public budgeting, governmental accounting and financial management and the disciplines which concern how a budget is prepared, decided and implemented.

- **PM Network**, Project Management Institute

Keeps the project management decision-maker abreast of the latest news of techniques & best practices.

- **Project Management Journal**, Project Management Institute

Contains advanced state-of-the-art project management techniques, research, theories & applications.

- **ITT Tech Virtual Library > Reference Resources > Project Management >**

- Microsoft Project

- **ITT Tech Virtual Library > Reference Resources > Economics >**

- Bureau of Economic Analysis

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## EVALUATION & GRADING

### COURSE REQUIREMENTS

#### 1. Attendance and Participation

Regular attendance and participation are essential for satisfactory progress in this course.

#### 2. Completed Assignments

Each student is responsible for completing all assignments on time.

#### 3. Team Participation (if applicable)

Each student is responsible for participating in team assignments and for completing the delegated task. Each team member must honestly evaluate the contributions by all members of their respective teams.

### Evaluation Criteria Table

The final grade will be based on the following weighted categories:

CATEGORY	WEIGHT
Participation	20%
Writing Assignments	40%
Analysis	40%
<b>Total</b>	<b>100%</b>



## Grade Conversion Table

Final grades will be calculated from the percentages earned in class 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

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## COURSE OUTLINE

- For all units, except Unit 1, the students are recommended to complete their readings before attending the class.
- **Unit 1:** All the concepts will be covered in the class. Therefore, the readings that are mentioned here are **merely** for the students' **reference**. However, there are a few readings that the students will be required to complete, after class, toward completion of certain graded assignments. The instructor should provide specific instructions for these readings. If students miss the first class, they will need to review the reference material for Unit 1.
- In addition to general class participation and in-class activities, all discussion questions shown will be graded under the Participation evaluation category.

Unit #	Activities for the unit
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1	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>Reference                   <ul style="list-style-type: none"> <li>○ Chapter 2: Process Approach to Project Management- Pages 51-62, and 65- 68</li> </ul> </li> </ul> </li> <li>• Writing Assignment: 1</li> <li>• In-class Discussion: 1</li> </ul>
2	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 3: Engineering Economic Analysis- Pages 75-78 and 91-130</li> </ul> </li> <li>• Writing Assignments: 1 and 2</li> <li>• Analysis: 1, 2 and 3</li> </ul>
3	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 5: Project Screening and Selection-Pages 177-188</li> </ul> </li> <li>• In-class Discussion: 1</li> <li>• Writing Assignment: 1</li> <li>• Analysis: 1</li> </ul>
4	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 5: Project Screening and Selection-Pages 188-217</li> </ul> </li> <li>• In-class Discussion: 1</li> <li>• Writing Assignment: 1</li> <li>• Analysis: 1</li> </ul>
5	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 4: Life-Cycle Costing - Pages 147-159</li> </ul> </li> <li>• In-class Discussion: 1</li> </ul>

Unit #	Activities for the unit
	<ul style="list-style-type: none"> <li>• Writing Assignment: 1</li> <li>• Analysis: 1</li> </ul>
6	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 4: Life-Cycle Costing-Pages 160-168</li> </ul> </li> <li>• Writing Assignment: 1</li> <li>• Analysis: 1 and 2</li> </ul>
7	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 9: Project Scheduling - Pages 383-392 and 395-416</li> </ul> </li> <li>• Writing Assignment: 1</li> <li>• Analysis: 1</li> </ul>
8	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 9: Project Scheduling-Pages 416-438</li> </ul> </li> <li>• In-class Discussion: 1 and 2</li> <li>• Analysis: 1</li> </ul>
9	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 11: Project Budget - Pages 487 -508</li> </ul> </li> <li>• Writing Assignment: 1</li> <li>• Analysis: 1</li> </ul>
10	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 11: Project Budget - Pages 487 -508</li> </ul> </li> <li>• In-class Discussion: 1</li> <li>• Analysis: 1 and 2</li> </ul>
11	<ul style="list-style-type: none"> <li>• Content Covered               <ul style="list-style-type: none"> <li>○ Chapter 12: Project Control - Pages 517-548</li> </ul> </li> </ul>

Unit #	Activities for the unit
	<ul style="list-style-type: none"><li data-bbox="516 262 846 296">• Writing Assignment: 1</li><li data-bbox="516 327 711 361">• Analysis: 1</li></ul>