# EC312
# Project Management Techniques
# [Onsite]

**Course Description:**

This course provides instruction on planning, scheduling and monitoring a project. Topics covered include elements of effective time management, scheduling and cost control techniques in developing, monitoring and controlling project plans.

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

Prerequisite: EC311 Introduction to Project Management

**Credit hours: 4**

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

# SYLLABUS:  Project  Management Techniques

Instructor:                    _____

Office hours:    _____

Class hours:     _____

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## MAJOR INSTRUCTIONAL  AREAS

1. Project management life cycle

2. Project management in a global and digital environment

3. Planning, scheduling, monitoring, and controlling projects

4. Effective time management

5. MS Project 2003

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## COURSE OBJECTIVES

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

1. Develop and verify the Scope Definition Statement for a project.

2. Create a Work Breakdown Structure (WBS) using the decomposition technique.

3. Create an integrated project plan.

4. Administer, track, and analyze project information using Microsoft Project 2003.

5. Execute a project plan in a simulated lab environment.

6. Evaluate the overall project performance continuously.

7.  Describe how to enhance project performance by developing team skills and competencies.

8.  Create a plan to track identified risks, monitor residual risks, and identify new risks.

9.  Control and coordinate changes across the scope, schedule, and budget of a project.

10. Describe the activities in closing a project.

11. Demonstrate effective and efficient use of the ITT Tech Virtual Library.


## 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 culturally diverse team.

4.  Acquire, organize, analyze, and communicate information.

5.  Utilize interpersonal skills and communication techniques.

6.  Demonstrate competence in applying technology to tasks.


## 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.


## COURSE RESOURCES

### Student Textbook Package

- ■      Wood, Dawn Parrish, Pascarella, Mary E., *Essentials Microsoft Project 2003, Upper Saddle River, NJ: Prentice Hall.*

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

Note: This book was issued in EC 311 Introduction to Project Management

# References and Resources

**ITT Tech Virtual Library**

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

- **Books**

The following books are related to this course and are available through the ITT Tech Virtual Library.  They are not required reading but are for reference and further reading.

- **Periodicals**

The following articles are related to this course and are available through the ITT Tech Virtual Library.

- **ITT Tech Virtual Library > Periodicals > EBSCOHost**

   o   Brown, Sarah, "A simple guide to project management, "*British Journal of Administrative Management, no. 43 (Oct/Nov2004): 20-21.*

   o   Freeman, Neal L., "Two planning tools can help you manage projects, "Ophthalmology *Times* 25, no. 18, (Sep 2000): 18.

   o   Goff, Leslie, "Mastering project management," *Computerworld* 27, no.51 (Dec 1993): 76.

- o Halpern, Marc, "Cracking Complexity in Project Management," *Computer-Aided Engineering* 18, no.12, (Dec 1999): 56.

- o Lock, Dennis, "The Project Management A-Z: A Compendium of Project Management Techniques and How to Use Them," *International Journal of Project Management 23, no. 3 (April 2005): 253-254, DOI: 10.1016/j.ijproman.2004.07.004.*

- o Madachy, Raymond J., "Heuristic risk assessment using cost factors," *IEEE Software* 14, no.3, (May/June 1997): 51.

- o Ross, Lan, "Think out of box when planning," *Northern Ontario Business* 23, no. 10 (Aug2003): 21.

- o Yang, Jay, "Project Management (Book)," *Construction Management & Economics* 14, no.5 (Sep 1996): 461.

- **ITT Tech Virtual Library > Periodicals > ProQuest**

  - o Armour, *Phillip G., "To plan, two plans," **Association for Computing Machinery. Communications of the ACM.** New York 48, no. 9 (Sep 2005): 15.*

  - o *Launi, Joseph D., "Creating a project plan by **Software Development,"** San Francisco 7, no.5 (May 1999): S1.*

  - o *Vandersluis, Chris, "Plans are good, but execution often falters," **Computing Canada.** Willowdale 27, no. 26 (Dec 2001): 11.*

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

- o Microsoft Project
  A tour, list of features, and FAQ's about Microsoft Project.
- o Primavera Systems
  This site offers detailed information about Primavera Project Management software.
- o Project Management Forum
  This site is an online source for global news and information related to project management.
- o Project Management Institute
  The Project Management Institute (PMI) is a not-for-profit project management professional association.
- o The Project Management WWW Site
  A collection of links to project management resources, tools, and news.
- o StartWright Resources
  A list of project management links.
- o TechRepublic
  A source for discussion and information about IT careers, technology topics, and IT products.
- o TenStep Project Management Process
  This site describes a methodology for managing work as a project.

- **ITT Tech Virtual Library > School of Study > School of Business:**

  - o Professional Organizations > Project Management Institute (PMI)

- **Others**

  The following references are included as additional references and are not required reading.

  - o Books:

    McConnell, Steve, *Rapid Development, Microsoft Press, 1996, ISBN: 1556159005.*

- o   Websites: N/A

- o   Learning Guides: N/A

- o   Other:

Microsoft tutorial titled *"Dig Deeper into Scheduling,"*

http://office.microsoft.com/training/training.aspx?AssetID=RC0107790410
33.

Microsoft tutorial titled "*Linking Project Tasks,"*
*http://office.microsoft.com/training/training.aspx?AssetID=RC0113586910*
*33.*

Microsoft tutorial titled "*Present your project in Word, PowerPoint, or*
*Visio,"*

http://office.microsoft.com/training/training.aspx?AssetID=RC0119691710
33.

Tutorial titled "*Microsoft Project 2003: Learning the Basics," from* Staffkit
at

http://www.staffkit.com/learn/course/prj3msbviv.htm.

Project Companion - Helping users around the world get more from
Microsoft® Project.
http://www.projectlearning.net/project_companion.htm.

All links to Web references outside of the virtual library are always subject to change without
prior notice.

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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:

| Categories | Weights (%) |
|---|---|
| ■    Discussion | 15% |
| ■    Exercises | 20% |
| ■    Writing Assignments | 30% |

| | | |
|---|---|---|
| ■ Project Assignment | 20% | |
| ■ Project Submission | 7% | |
| ■ Project Presentation | 8% | |
| Total | 100% | |

## 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 |

## COURSE OUTLINE

Note to the Instructor:

1.  The numbers included in "Activity Type" column denote the unit number and lesson number in which the activity is assigned. For example, 1-1 included in the first row

indicates a discussion that students need to participate toward completing Unit 1 Lesson 1.

2.  Multiple activities of the similar type are included in the same unit. For example, Unit 1 has two writing assessments called 1-1a and 1-1b respectively.

3.  Readings:

- 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 in the following table 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 will provide specific instructions for these readings.

  If students miss the first class, they will need to review the reference material for Unit 1.

4.  In the following table:

- PMBOK *refers to A Guide to Project Management Body of Knowledge (PMBOK® Guide).* 4th ed.

- Essentials *refers to Essentials Microsoft Project 2003.*

| U ni t | Lsn | Lesson Title | Content Topics | Reading (pages from Textbook) | Activ | | |
|---|---|---|---|---|---|---|---|
| | | | | | Writing Assignme nt | Discussio n | Exercises |
| 1 | 1 | Project Integration Management | o Develop Project Charter<br><br>o Develop Preliminary Project Scope Statement<br><br>o Develop Project Management Plan<br><br>o Integrated Change Control | **Reference**<br><br>PMBOK, Chapter 4, Project Integration Management, Reference<br><br>Pages 71-83 | 1-1a<br><br>1-1b<br><br>(Due Unit 2) | 1-1 | |
| 2 | 1 | Taking a Tour of Project 2003 | o Starting Microsoft Project, Opening a Project, and Saving a Project<br><br>o Exploring the Project Window<br><br>o Understanding the Task Table<br><br>o Understanding the Time Table in Gantt Chart View | **Reference**<br>Essentials, Project 1, Taking a Tour of Project 2003, Pages 2 -26 | | | 2-1a<br><br>2-1b |
| | 2 | Specifying Overall Project Settings | o Creating a New Project and Assigning the Start Date<br><br>o Creating a Project Calendar<br><br>o Viewing and Modifying Project Options | Essentials, Project 2, Specifying Overall Project Settings,<br><br>Pages 36 -52 | | | 2-2a<br><br>2-2b<br><br>2-2c |
| 3 | 1 | Project Scope Management | o Scope Planning<br><br>o Scope Definition<br><br>o Create WBS<br><br>o Scope Verification<br><br>o Scope Control | PMBOK, Chapter 5, Project Scope Management, Pages<br><br>103-128 | 3-1a<br><br>3-1b | 3-1 | |
| 4 | 1 | Entering Tasks and Creating a Project Schedule | o Entering Tasks and Specifying Duration<br><br>o Organizing tasks<br><br>o Creating Milestone and Recurring Tasks<br><br>o Linking Tasks by Specifying Task | Essentials, Project 3, Entering Tasks and Creating a Project Schedule, Pages 62-86 | | | 4-1a<br><br>4-1b |

| U ni t | Lsn | Lesson Title | Content Topics | Reading (pages from Textbook) | Activ |  |  |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  | Writing Assignme nt | Discussio n | Exercises |
|  |  |  | Predecessors | | | | |
|  |  |  | o Using Outline Features and Viewing Work Breakdown Structure Codes | | | | |
|  |  |  | o Applying a Calendar to a Task | | | | |
|  |  |  | o Setting Constraints | | | | |
| 5 | 1 | Project Human Resource Management | o Human Resource Planning | PMBOK , Chapter 9, Project Human Resource Management, Pages<br><br>215-242 | | 5-1 | |
|  |  |  | o Acquire Project Team | | | | |
|  |  |  | o Develop Project Team | | | | |
|  |  |  | o Manage Project Team | | | | |
|  | 2 | Scheduling Resources and Assigning Tasks | o Viewing and Setting Up Resources | Essentials, Project 4, Scheduling Resources and Assigning Tasks,<br><br>Pages<br><br>100 - 124 | | | 5-2 |
|  |  |  | o Entering Resource Information | | | | |
|  |  |  | o Entering Fixed Costs | | | | |
|  |  |  | o Assigning Resources to Tasks | | | | |
|  |  |  | o Viewing and Modifying Resource Assignments | | | | |
|  |  |  | o Printing Resource Allocations and Project Costs | | | | |
| 6 | 1 | Project Communications Management | o Communications Planning | PMBOK, Chapter 10, Project Communications Management, Pages<br><br>243-245 and 251-271 | 6-1 | 6-1 | |
|  |  |  | o Information Distribution | | | | |
|  |  |  | o Performance Reporting | | | | |
|  |  |  | o Manage Stakeholders | | | | |
| 7 | 1 | Modifying Task Information | o Editing and Replacing Task Information and Checking Spelling | Essentials, Project 5, Modifying Task Information, Pages<br><br>136-161 | | | 7-1 |
|  |  |  | o Saving a Baseline | | | | |
|  |  |  | o Entering Percentage Complete | | | | |
|  |  |  | o Viewing Percentage Complete | | | | |
|  |  |  | o Entering Actuals | | | | |

| Unit | Lsn | Lesson Title | Content Topics | Reading (pages from Textbook) | Activ |  |  |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  | Writing Assignment | Discussion | Exercises |
|  |  |  | o Specifying Lead and Lag Time<br><br>o Resolving Constraint Conflicts and Setting a Task Deadline |  |  |  |  |
| 7 | 2 | Modifying tasks using the Gantt Chart | o Adding a Progress Line to a Gantt Chart<br><br>o Removing Task Dependencies<br><br>o Rescheduling Uncompleted Work<br><br>o Modifying and Removing a Split<br><br>o Using Tracking Gantt View to Analyze Critical Path<br><br>o Check Overall Project Progress | Essentials, Project 6, Modifying tasks using the Gantt Chart,<br><br>Pages<br><br>172-196 | 7-2 |  | 7-2 |
| 8 | 1 | Project Risk Management | o Risk Management Planning<br><br>o Risk Identification<br><br>o Qualitative Risk Analysis<br><br>o Risk Response Planning<br><br>o Risk Monitoring And Control | PMBOK , Chapter 11, Project Risk Management, Pages<br><br>259-312 | 8-1 | 8-1 |  |
| 9 | 1 | Project Cost Management | o Cost Control | PMBOK , Chapter 7, Project Cost Management, Pages<br><br>183-188 | 9-1 | 9-1 |  |
| 9 | 2 | Project Integration Management | o Close Project | PMBOK , Chapter 4, Project Integration Management, Pages<br><br>99-101 | 9-2 | 9-2 |  |
| 10 | 1 | Customizing Microsoft Project and Sharing Information | o Customizing the Timescale<br><br>o Creating a Custom Field<br><br>o Creating a Custom View<br><br>o Creating a Custom Report<br><br>o Using the Organizer to Share Custom | Essentials, Project 7, Customizing Microsoft Project and Sharing Information, Pages<br><br>208-233 |  |  | 10-1 |

         Date: 4/20/2010

| U ni t | Lsn | Lesson Title | Content Topics | Reading (pages from Textbook) | Activ | | |
|---|---|---|---|---|---|---|---|
| | | | | | Writing Assignme nt | Discussio n | Exercises |
| | | | | | | | |
| | | | Views, Reports, and Calendars<br><br>o  Sending a Schedule Note Message | | | | |
| 1 0 | 2 | Integrating Project Data | o  Importing a Task List From Excel<br><br>o  Exporting Task Sheet Information Into an Excel Worksheet<br><br>o  Linking and Embedding Project Data into Word And Excel<br><br>o  Inserting Objects into Task Notes and Adding Hyperlinks to Tasks<br><br>o  Using the Outlook Address Book to Add Resources | Essentials, Project 8, Integrating Project Data, Pages<br><br>244-271 | | | 10-2 |
| 1 1 | Project Presentation | | | | | | |

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# INTENT/INTERFACE

This course is a continuation of the introduction to the professional discipline of project management. It focuses extensively on the nine knowledge areas and five process groups of management. It explains the different functions of Microsoft Project 2003 and describes how to apply them to a project. The focus lies within the student's familiarity with project management resources including periodicals, journals, associations, and/or professional organizations.