

CRN# 32116 CPET 581 IT Project Management & Control
CRN# 32117 TECH 595 Industrial Project Management & Control
Summer 2010 (May 17 to July 26 – Independent Study)

Curriculum - Master of Technology
Industry Technology/Manufacturing, IT/Advanced Computer Applications Tracks

Course Description

TECH 561 Industrial Project Management & Control (Course Catalog Description)
[CPET 5781 IT Project Management & Control/TECH 595 Industrial Project Management & Control]
An exposition of planning, scheduling, and controlling of project during its life cycle. Topics include the use of project management techniques, such as PERT (Project Evaluation and Review Technique) and Gantt charts and other techniques of selecting, planning, scheduling, and controlling projects. Covers resources optimization and risk management techniques. Involves computer applications and software tools in project management.

Prerequisite: B.S. in EET, CPT, or EE; or Senior/Graduate standing with the consent of instructor.

Required Text Books:

- Harold Kerzner, *Project Management: A System Approach to Planning, Scheduling, and Controlling*, 10th edition, John Wiley & Sons, Inc, ISBN 978-0-470-27870-3, 2009. (Book 1)
- *A Guide to the Project Management Body of Knowledge*. Project Management Institute, Inc. 3rd edition, 2004 or 4th edition, 2008. (Book 2)

Instructor Information

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Course Web site: <http://www.etc.ipfw.edu/~lin>

Course Objectives

1. To understand role of project management I industrial environment.
2. Understand the purpose of planning and managing industrial project.
3. Apply commercial project scheduling software to replace manual calculations.

Reading List: In addition to a required text and course notes, additional reading will be required from scholarly journals and periodicals. Course instructor will prepare the reading list in the order of topics of discussion.

Academic Dishonesty: It should be noted that the policy of the University that any student found to have engaged in any activity constituting academic dishonesty will receive an "F" for the course in which the

activity occurred or a dismissal from the University. Part 8: Regulation, Policies, Rights, and Responsibilities of Graduate Bulletins, explains the policy in detail:

<http://bulletin.ipfw.edu/content.php?catoid=19&navoid=487&returnto=search> .

Assignments & Policies

Homework: Homework assignments (electronic copy submission) are due on the indicated due date, no late homework is accepted. Homework details along with deadlines will be specified in the assignment.

Class Activities, Expectations

- The class format will be independent study, with 2 assignments each week, 10 weeks total.
- Student assignments include assignments on text books, case studies, reading technical papers and/or articles and writing short summary for each paper.
- Case studies and presentations: Each student will take responsibility for “leading” the discussion of a minimum of two case studies (details and sign-up will be discussed in first class)
- Final project: students will complete a term project, prepare progress reports, present projects in class and complete a written project report. Guidelines for the project will be provided in the class.

Grading:

- Individual reading assignment and summary reports – 40%
- Case studies and presentations – 20%
- Mid-term take-home exam – 15%
- Project (report 30%, presentation 10%) – 25%

Grading Scale: A (90-100%), B (80 -89%), C (70-79%), D (60-69%), F (0-59%)

*No late assignment, reports, etc, will be accepted.

Tentative Schedule

Week/ Date	Topics	Related Chapters & Text	Assignments (Reading, exercises, etc)
1 5/18-24	Project Management Overview: Project Management Context: Project life cycle, Stakeholders, Organization and project office The Nine Project Management Knowledge Areas: Project integration management, Project scope management, Project time management, Project cost management, Project quality management, Project HR management, Project communication	Ch. 1 Overview Ch 2 Project Management Growth: Concepts and Definitions, Ch 3. Organizational Structures	

	management Project risk management, Project procurement management		
2 5/25 -31	Project Communication Management Project Human Resource Management Project Integration Management Project Management Software	Ch 5. Managing Functions	TBD
3 6/1-6/7	Project Management Process: Phases of project management, Stages of a major project	Ch 4. Organizing and Staffing the Project Office and Team	Project proposal
4 6/8-14	Project Scope Management (5, 6, 7, 8): Problem definition, Determining feasibility, Generating project ideas, Establishing project objectives, Case study	Ch 6. Management of Your Time and Stress Ch 7. Conflicts Ch 8. Special Topics	TBD
5 6/15-21	Project Time Management: Planning, Scheduling, and Controlling <ul style="list-style-type: none"> • Work breakdown structure • Precedence relationships • Sequencing project tasks • Precedence diagrams • PERT and CPM analysis • Cost and time estimating • Gantt charts 	Ch 11. Planning Ch 12. Network Scheduling Techniques	TBD
6 6/29-7/5	Network Scheduling Techniques Project Graphics	Ch 12 & Ch 13 Ch 21. Modern Developments Project Management	TBD
7 7/6-12	Project Cost Management: <ul style="list-style-type: none"> • Resource planning • Estimating costs • Budgeting • Control costs 	Ch 14. Pricing and Estimating Ch 15. Cost Control Ch 16. Trade-Off Analysis in a Project Management	TBD
8 7/13-19	Project Quality Management <ul style="list-style-type: none"> • Quality planning: tools and techniques • Quality assurance • Quality Control 	Ch. 20 Quality Management	TBD
9 7/20-26	Project Risk Management <ul style="list-style-type: none"> • Plan risk management • Risk identification • Qualitative risk analysis • Quantitative risk analysis 	Ch 17. Risk Management	TBD

	<ul style="list-style-type: none">• Plan risk responses• Monitor and control risks		
10 8/2	Final Project – Presentation (Monday 12:00 – 1:00 PM)		