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:

Instructor Information

Paul I-Hai Lin, Professor of Electrical and Computer Engineering Technology
Department of Computer and Electrical Engineering Technology & Information Systems and Technology
Indiana University-Purdue University Fort Wayne
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Office: ET 221B (May 17, 2010 to June 30, 2010)/ ET 205C (July 1, 2010 to July 31, 2010)
Phone: 260-481-6339  Email: lin@ipfw.edu
  - Office Hours: weekday hours – by appointment

Course Web site: [http://www.etcs.ipfw.edu/~lin](http://www.etcs.ipfw.edu/~lin)

Course Objectives

1. To understand role of project management in 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:

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**

<table>
<thead>
<tr>
<th>Week/ Date</th>
<th>Topics</th>
<th>Related Chapters &amp; Text</th>
<th>Assignments (Reading, exercises, etc)</th>
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</thead>
<tbody>
<tr>
<td>Week</td>
<td>Dates</td>
<td>Topic</td>
<td>Subtopics</td>
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<tr>
<td>3</td>
<td>6/1 - 6/7</td>
<td>Project Management Process: Phases of project management, Stages of a major project</td>
<td>Ch 4. Organizing and Staffing the Project Office and Team</td>
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<td>4</td>
<td>6/8 - 6/14</td>
<td>Project Scope Management (5, 6, 7, 8): Problem definition, Determining feasibility, Generating project ideas, Establishing project objectives, Case study</td>
<td>Ch 6. Management of Your Time and Stress, Ch 7. Conflicts, Ch 8. Special Topics</td>
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<td>5</td>
<td>6/15 - 6/21</td>
<td>Project Time Management: Planning, Scheduling, and Controlling</td>
<td>Planning, Scheduling, and Controlling: • Work breakdown structure • Precedence relationships • Sequencing project tasks • Precedence diagrams • PERT and CPM analysis • Cost and time estimating • Gantt charts</td>
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<tr>
<td>6</td>
<td>6/29 - 7/5</td>
<td>Network Scheduling Techniques</td>
<td>Ch 12 &amp; Ch 13</td>
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<td>8</td>
<td>7/13 - 7/19</td>
<td>Project Quality Management</td>
<td>Quality planning: tools and techniques, Quality assurance, Quality Control</td>
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<td>9</td>
<td>7/20 - 7/26</td>
<td>Project Risk Management</td>
<td>Plan risk management, Risk identification, Qualitative risk analysis, Quantitative risk analysis</td>
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<td>10</td>
<td>Final Project – Presentation (Monday 12:00 – 1:00 PM)</td>
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