TMGT 352.01W Principles of Cost Engineering  
Course Syllabus: Spring 2013  
Online eCollege Course

Instructor: Wen-Hsing Liu, Ph.D.  
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Department of Engineering & Technology

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COURSE INFORMATION

Meeting Time: Meets 1/14/2013 through 5/10/2013

Classroom: Online instructional site: eCollege

Course Text:  
Skills & Knowledge of Cost Engineering, 5th Edition Revised  
Edited by Dr. Scott J. Amos, PE  
AACE International (Association for the Advancement of Cost Engineering)  
1256 Suncrest Towne Centre Dr. Morgantown, WV 26505-1876 USA  
ISBN: 978-1466412552  
2012 printing by CreateSpace

Course Description:  
Cost engineering is concerned with the application of scientific principles and techniques to problems of cost estimating, cost control, business planning and management science, profitability analysis, project management, and planning and scheduling. (Undergraduate Catalog 2012-2013)  
Prerequisite: Accounting 221

Student Learning Outcomes:  
Upon Satisfactory completion of the course, students should be able to understand and apply several major areas of knowledge and skills in Cost Engineering (AACE International’s Recommended Practice NO. 11R-88):  
1. Element of Cost (Section 1)  
2. Element of Analysis (Section 6 and 7)  
3. Enabling Knowledge (Section 5)  
4. Planning (section 2, 3, 5, and 7)  
5. Plan Implementation (section 4)  
6. Performance Measurement (section 4)  
7. Performance Assessment (section 4)
COURSE REQUIREMENTS

Instructional / Methods / Activities Assessments

This is an online course which contains facilitated lectures and a series of assignments and assessments to assist students in achieving the course learning outcomes. Each week, students are required to complete the Activities and Assignments, including readings, quizzes, discussions, homework, and exams. A total of 1000 points can be earned in this course.

1. The course is expected to take a minimum of 96 hours or more to complete online. A minimum of six hours per week of effort will be required. The time that it takes to complete this course includes study of the textbook, internet and alternative reference research, eCollege activities and instruction, and completion of all assignments, quizzes, and exams.

2. The mid-term exam will cover the textbook Chapters 1-15. The final exam is comprehensive, which cover the textbook Chapters 1-31. The mid-term and final exams will be multiple choice.

3. In addition to the reading assignments, quizzes, discussions, or homework will be given throughout the semester to assess the material/topics covered in associated course readings and/or course activities.

4. A grade of “0” will be assigned to late assignments, unless prior arrangements are worked out with the instructor. The instructor has the final decision on whether late work will be accepted. Late penalties will be assessed to any approved late work.

Grading:

The final course grade will be calculated based on the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>300</td>
</tr>
<tr>
<td>Discussions/Homework</td>
<td>150</td>
</tr>
<tr>
<td>Mid-term Exam</td>
<td>250</td>
</tr>
<tr>
<td>Final Exam</td>
<td>300</td>
</tr>
<tr>
<td><strong>Total Points possible for semester</strong></td>
<td><strong>1000 points</strong></td>
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</tbody>
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The grading scale is as follows:

- 900 – 1000 points   A
- 800 – 899 points    B
- 700 – 799 points    C
- 600 – 699 points    D
- < 600 points        F

TECHNOLOGY REQUIREMENTS

The following technology is recommended to be successful in this online course:

- **Internet Access / Connection** - high speed recommended (not dial-up) - to be able to connect conveniently and regularly.
- **Microsoft Word** - Files placed in the assigned dropboxes in eCollege should be saved as .doc, docx or .rtf files. Many students do not fully utilize the power within this document processing software. It can assist the user when they know how to use more of the functions. Even the use of the spelling and grammar checkers, page and section breaks, or the use of APA templates.
This course will be facilitated using eCollege, the Learning Management System used by Texas A&M University-Commerce.

- To begin the course, go to: https://leo.tamuc.edu/. You will need your Campus Wide Identification Number (CWID) to log into the course.
- If you have questions and/or problems, please contact Technology Services at 903-468-6000 or helpdesk@tamu-commerce.edu.
- eCollege HelpDesk is available 24 hours a day, seven days a week. You may contact the eCollege HelpDesk at: 1-866-656-5511 or helpdesk@online.tamuc.org or through the Online Chat by clicking on the “Live Support” tab within your eCollege course.

**COMMUNICATION AND SUPPORT**

**Interaction with Instructor Statement:**

The communication tools used in this course will be Email and eCollege Announcements. Students should communicate with the instructor through the course email tool or directly to the email address provided in this syllabus. The instructor will communicate with students via email through their myLeo email address. Students can expect to receive a response to emails within 48 hours after the email was sent to the instructor. In most cases, the response time will be shorter. Announcements will be posted in the course as needed to keep students informed of changes in schedule or points of clarification for the course. Students should check the announcements each time you enter the course.

**Virtual Office and Student Lounge:**

A virtual office and student lounges discussion forums are open for students to post questions related to the course. You are encouraged to post your questions there prior to contacting the instructor by other methods. Include a subject line which cues the reader in to the nature of your question. If students have a similar question, the subject line prompts the readers that someone else already asked a similar question. The instructor will attempt to check the virtual office within 48 hours of any posting. Feel free to use the student lounge. Open discussions, sharing of ideas, answering each other’s questions is highly encouraged.

**Technical Support:**

If at any time you experience technical problems (e.g., you can’t log in to the course, you can’t see certain material, etc.), please contact the eCollege HelpDesk, available 24 hours a day, seven days a week. The HelpDesk can be reached by at helpdesk@online.tamuc.org or by calling (toll-free) 1-866-656-5511.
Course Specific Procedures:

Academic Dishonesty
Texas A&M University-Commerce will not condone plagiarism in any form. Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work can result in a “0” on a given assignment(s) or an “F” for the course as well as further administrative sanctions permitted under University policy. You may discuss course work and other course materials with fellow students (except during tests), but it is inappropriate to have another student do your course work or provide you with any portion of it.

University Specific Procedures:

ADA Statement
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

Student Conduct
All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Code of Student Conduct from Student Guide Handbook).
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Reading Assignments</th>
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</table>
| Week 1 | 1/14–1/20| Course Introduction  
Navigate the Online Course | Course Syllabus  
eCollege Student Orientation Tutorial |
| Week 2 | 1/21–1/27| Section 1–Cost  
1. Cost Elements  
2. Pricing  
3. Materials | Chapters 1-3 |
| Week 3 | 1/28–2/3 | 4. Labor  
5. Engineering  
6. Equipment, Parts, and Tools | Chapters 4-6 |
| Week 4 | 2/4–2/10 | 7. Economic Costs  
8. Activity-Based Cost Management | Chapters 7-8 |
| Week 5 | 2/11–2/17| Section 2–Cost Estimating  
9. Estimating  
10. Process Product Manufacturing | Chapters 9-10 |
| Week 6 | 2/18–2/24| 11. Discrete product manufacturing  
Section 3–Planning & Scheduling  
12. Planning  
13. Scheduling | Chapters 11-13 |
| Week 7 | 2/25–3/3 | Section 4–Progress & Cost Control  
14. Progress Measurement and Earned Values  
15. Earned Value for Variable Budgets | Chapters 14-15 |
| Week 8 | 3/4–3/8  | Mid-Term Exam | Chapters 1-15 |
|        | 3/11–3/17| Spring Break | Chapters 1-15 |
| Week 9 | 3/18–3/24| 16. Tracking Cost and Schedule Performance  
17. Performance and Productivity Management | Chapters 16-17 |
| Week 10| 3/25–3/31| Section 5–Project Management  
18. Project Management Fundamentals  
19. Project Organization Structure  
20. Project Planning | Chapters 18-20 |
| Week 11| 4/1–4/7  | 21. Project Labor Cost Control  
22. Leadership and Management of Project People | Chapters 21-22 |
| Week 12| 4/8–4/14 | 23. Quality Management  
24. Value Analysis | Chapters 23-24 |
26. Strategic Asset Management | Chapters 25-26 |
| Week 14| 4/22–4/28| Section 6–Economic Analysis  
27. Basic Engineering Economics  
28. Applied Engineering Economics  
Section 7–Statistics, Probability, & Risk  
29. Statistics & Probability | Chapters 27-29 |
31. Risk Management | Chapters 30-31 |
| Week 16| 5/4–5/8  | Final Exam | Chapters 1-31 |