# TMGT 352 – Principles of Cost Engineering COURSE SYLLABUS: Spring 2016

**Instructor:** Dr. Mohammed AlMansouri

Assistant Professor

Department of Engineering and Technology

**Office Location:** 

**Office Hours:** (Tuesday & Thursday) 9:00am - Noon

**Office Phone:** 903-886-5474

**Office Fax:** 903-468-6010 (Inform instructor when fax is sent) **University Email Address:** Mohammed.AlMansouri@tamuc.edu

#### COURSE INFORMATION

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 ofcost estimating, cost control, business planning and management science, profitability analysis, projectmanagement, and planning and scheduling. Pre-requisite: ACCT 221

### **Student Learning Outcomes:**

Upon Satisfactory completion of the course, students should be able to understand and apply severalmajor 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 toassist students in achieving the course learning outcomes. Each week, students are required to complete 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 ofsix 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 27&28 and Chapters 1 to 13. The final exam willcover Chapters 14 to 26 and Chapters 29 to 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 withthe instructor. The instructor has the final decision on whether late work will be accepted. Latepenalties will be assessed to any approved late work.

#### **GRADING**

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

Quizzes 150 points
Discussions/Homework 150 points
Application Paper 150 points
Mid-Term Exam 250 points
Final Exam 300 points
Total Points possible 1000 points

#### **Grading Scale:**

A = 900-1000 points

B = 800-899 points

C = 700-799 points

D = 600-699 points

F = < 600 points

# **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 connectconveniently and regularly.
- Microsoft Word-Files placed in the assigned dropboxes in eCollege should be saved as .doc,docx or .rft files. Many students do not fully utilize the power within this document processingsoftware. It can assist the user when they know how to use more of the functions. Even the useof the spelling and grammar checkers, page and section breaks, or the use of APA templates.

#### **ACCESS AND NAVIGATION**

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@tamuc.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. Studentsshould communicate with the instructor through the course email tool or directly to the email addressprovided in this syllabus. The instructor will communicate with students via email through their myLeoemail address. Students can expect to receive a response to emails within 48 hours after the email wassent to the instructor. In most cases, the response time will be shorter. Announcements will be posted inthe course as needed to keep students informed of changes in schedule or points of clarification for thecourse. Students should check the announcements each time you enter the course

### **Virtual Office and Student Lounge**

A virtual office and student lounge discussion forums are open for students to post questions related to thecourse. You are encouraged to post your

questions there prior to contacting the instructor by othermethods. Include a subject line which cues the reader in to the nature of your question. If students have asimilar 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 highlyencouraged.

#### **Technical Support**

If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certainmaterial, etc), please contact the eCollege HelpDesk available 24 hours a day, seven days a week. Youmay contact the eCollege Helpdesk at 1-866-656-5511 or helpdesk@online.tamuc.org or through theOnline Chat by clicking on the "Live Support" tab within your eCollege course.

# COURSE AND UNIVERSITY PROCEDURES/POLICIES

### **Course Specific Procedures**

#### **Academic Dishonesty**

Texas A&M University-Commerce will not allow plagiarism in any form. The students' course worksshould be their own. Plagiarism represents disregard for academic standards and is strictly againstUniversity policy. If you have a question regarding academic dishonesty and integrity, please talk to theinstructor or refer to the Code of Student Conduct from Student Guide Handbook.

### **University Specific Procedures**

#### Students with Disabilities

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- Room 162 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 StudentDisabilityServices@tamuc.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*). Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online

forum: <a href="http://www.albion.com/netiquette/corerules.html">http://www.albion.com/netiquette/corerules.html</a>

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## **COURSE OUTLINE / CALENDAR**

WEEK	DATES	TOPICS	Reading
	Jan 17	First day of class	
Week 1	1/17-1/20	<ul><li>Course Introduction</li><li>Navigate the Online Course</li><li>Introduction</li></ul>	Course Syllabus eCollege Student Orientation Tutorial
Week 2	1/23-1/27	<ul><li>3. Cost Elements</li><li>4. Pricing</li><li>5. Materials</li></ul>	Chapters 1-3
Week 3	1/30- 2/3	<ul><li>6. Labor</li><li>7. Engineering</li><li>8. Equipment, Parts, and Tools</li></ul>	Chapters 4-6
Week 4	2/6-2/10	9. Economic Costs 10. Activity-Based Cost Management	Chapters 7-8
Week 5	2/13-2/17	11. Estimating 12. Process Product Manufacturing	Chapters 9-10
Week 6	2/20 - 2/24	13. Discrete product Manufacturing Section 3- Planning and Scheduling 14. Planning 15. Scheduling	Chapters 11-13
Week 7	2/27- 3/3	Section 4-Progress and Cost Control 16. Progress Measurement and Earned Values 17. Earned Value for Variable Budgets	Chapter 14-15
Week 8	3/6-3/10	Mid-Term Exam	Chapters 1-15
	Mar 13-17	- Spring Break- No classes	
Week 9	3/20-4/24	18. Tracking Cost and Schedule Performance 19. Performance and Productivity Management	Chapters 16-17
Week 10	3/27-3/31	Section 5-Project Management 20. Project Management Fundamentals 21. Project Organization Structure 22. Project Planning	Chapter 18-20
Week 11	4/3-4/7	23.Project Labor Cost Control 24. Leadership and Management of Project people	Chapters 21-22
Week 12	4/10-4/14	25. Quality Management 26. Value Analysis	Chapters 23-24
Week 13	4/17-4/21	27. Contracting for Capital Projects 28. Strategic Asset Management	Chapters 25-26
Week 14	4/24-4/28	Basic Engineering Economics     Applied Engineering Economics	Chapters 27-28
Week 15	5/1- 5/5	Section 7- Statistics, Probability & Risk 29. Statistics & Probability 30. Basic Concepts in Descriptive Statistics 31. Risk Management.	28-31
	5/8-5/12	Final Exam	Chapters 16-31