

Texas A&M University–Corpus Christi
College of Science and Technology
Mechanical Engineering and Engineering Technology

ENTC 4415.001/4415.201
MWF 13:00 - 13:50 (lec), MW 14:05-15:20 (lab)
Location: ST 220 (lec + lab)
Fall 2010
Office Telephone: 1-361-825-3378

Dr. Ruby Mehrubeoglu
Office: ST 222B
Office Hours:
MW 15:30-16:40, F 14:00-16:40
E-mail:
Ruby.MehrubeogluATtamucc.edu

ENTC 4415 Project Justification and Management

COURSE DESCRIPTION

Topics include foundations of engineering economy, cash flow and equivalence, and project justification; Introduction to project management, planning, scheduling and control, use of project management software, GANTT charts, PERT charts, and critical path analysis. Students prepare proposals, including specifications, timelines, schedule and budget for the projects to be implemented in ENTC 4350, Capstone Project. This course should be taken the semester preceding ENTC 4350.

COURSE INFORMATION

Prerequisite: senior standing Credit Hours: 4 (3-3)
Meeting Times: MWF 1:00-1:50 p.m. (Lecture), MW 2:05-3:20 p.m. (Laboratory)
Meeting Places: ST 220 (lecture and lab)

PROFESSOR INFORMATION

Dr. Ruby Mehrubeoglu (Dr. M.)
Office Location: ST 222B
Office Telephone: (361) 825-3378 FAX Number: (361) 825-5848
Office Hours: MW 3:30 – 4:40 p.m., F 2:00 – 4:40 p.m., and by appointment
E-mail Address: Ruby.MehrubeogluATtamucc.edu

STUDENT LEARNING OUTCOMES (LEARNING OBJECTIVES)

At successful completion of this course the student will be able to:

- Understand and analyze the requirements for a business project
- Evaluate project environments and create corrective action plans
- Determine justification and audit of performance for a project
- Apply engineering economics principles and tools
- Create schedules and budgets for projects and use planning and scheduling tools
- Prepare and submit a formal Capstone Project proposal
- Prepare and give oral presentations

TEXTBOOKS

1. J. R. Meredith and S. J. Mantel, *Project Management: A Managerial Approach*, 7th Ed., John Wiley & Sons, 2008. (ISBN 13: 9780470226216)
2. C. Chatfield and T. Johnson, *Microsoft® Office Project 2007 Step by Step*, Microsoft, 2007. (ISBN: 0735623058 / 0-7356-2305-8)

SUGGESTED READING

1. D. G. Newnan, T. G. Eschenbach and J. P. Lavelle, *Engineering Economic Analysis*, 10th Ed., New York: Oxford University Press, 2009.

INSTRUCTIONAL METHODS

Methods and activities for instruction include the following: lectures, invited speakers, group discussions, homework assignments, laboratory exercises, reports, examinations, research, and final oral presentation.

MAJOR COURSE REQUIREMENTS AND ASSESSMENT

Assessment is based on two midterm exams, lab reports, homework, pop quizzes, oral presentations, and a final exam, and capstone project proposal reports. The final exam is comprehensive. You may examine the final exam within four weeks after the final grades are assigned. The final grade is computed as follows.

	Points	Total grade	Tentative Grade
Homework + Quizzes	10	$90 \leq \text{total}$	A
Lab Experiments/Reports	10	$80 \leq \text{total} < 90$	B
Exam 1	15	$70 \leq \text{total} < 80$	C
Exam 2	15	$60 \leq \text{total} < 70$	D
Capstone Preliminary Proposal	2	$\text{total} < 60$	F
Capstone Preliminary Proposal – oral presentation	2		
Capstone Project Proposal – Draft Report	5		
Capstone Project Proposal – Draft – Oral presentation	2		
Capstone Project Proposal – Final Report	10		
Capstone Project Proposal – Final Oral Defense	4		
Final Exam	25		
Total	100		

MAKEUP EXAMINATIONS

No makeup examinations will be given except in the case of a documented extreme emergency, or university-accepted excuse. Makeup exams will be different from the regular exams and more challenging.

ATTENDANCE POLICY

You are advised to attend all lectures and laboratories. If you miss a class period, you are responsible for whatever is covered or announced during your absence. There will be no make-ups for oral presentations or quizzes. The students are expected to display responsible conduct in the classroom and laboratory, including but not limited to adhering to the rules and regulations, and respecting the instructor and fellow classmates. The use of cell phones, electronic devices, or computers for purposes other than those of the course objectives of the day is not permitted. Restricted activities include but are not limited to text messaging, twittering, talking on the phone, browsing on the internet, or disrupting the classroom activities. Anyone displaying unprofessional classroom behavior will be asked to leave the classroom or the laboratory.

ASSIGNMENTS

Late assignments will only be accepted with penalty. There will be a 20 point deduction per late day from the total score of maximum 100 up to 5 days, after which a late assignment will not be accepted.

ACADEMIC HONESTY

Plagiarism and other academic dishonesty are not tolerated. Your attention is called to the University policy in the Student Handbook.

FOOD AND DRINK: Eating or drinking is NOT permitted in the labs. Students with food or drink will be asked to discard them, or leave the room.

SAFETY: The safety of students, faculty, staff and visitors to the ET laboratories is of paramount importance to the Mechanical Engineering and Engineering Technology Program. You must follow all safety procedures and use personal protective equipment as required in each laboratory. Any student who attempts to use equipment without authorization or violates any safety policy or regulation will be immediately removed from the laboratory.

DISABILITIES ACCOMODATIONS

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 believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

GRADE APPEALS

As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

COURS OUTLINE
Weekly Schedule*

WEEK	Date	Textbook and other Reading	Lecture Topics*	Laboratory Topics and Exercises*
1	- 8/25, 8/27	Ch. 1 (M & M) Appendix A (C & J)	Review of Syllabus; Review of Safety and security Procedures; Project, Project Management, Project Life Cycle	Lab Safety; Introduction to MS Project
2	8/30, 9/1, 9/3	Ch. 2 (M & M) Ch. 1 (C & J)	Project Selection, Risk Analysis	Concept Mapping; Managing a Simple Project; Creating a New Project Plan
3	- 9/8, 9/10	Handouts Ch. 2 (C & J)	Engineering Economics	Labor Day Holiday, Creating a Task List
4	9/13, 9/15, 9/17	Handouts Ch. 3, 4 (C & J)	Engineering Economics: Earned Value Analysis	Setting up Resources and Assigning Resources to Tasks
5	9/20, 9/22, 9/24	Ch. 3 (M & M) Ch. 5 (C & J)	Project Manager	Drawing a Gantt Chart Preliminary Project Proposal Oral Presentations + Reports
6	9/27, 9/29, 10/1	Ch 4,5 (M&M) Ch. 6 (C & J)	Negotiation, Conflict Management; Project organization	Exam 1* Tracking Progress
7	10/4, 10/6, 10/8	Ch. 5 (M & M) Ch. 7, 8 (C & J)	Project Team, Human Factors	Project Scheduling
8	10/11, 10/13, 10/15	Ch. 6 (M & M) Ch. 9, 10 (C & J)	Project Planning; systems integration; action plan; work breakdown; responsibility chart	Project Scheduling
9	10/18, 10/20, 10/22	Ch. 7, 8 (M&M) Ch 11, 12, 14 (C&J)	Budgeting; Cost Estimation; Scheduling;	Viewing and Reporting
10	10/25, 10/27, 10/29	Ch. 9 (M & M) Ch 15 (C & J)	Resource Allocation; critical path;	Project Proposal Draft: Oral Presentations + Reports
11	11/1, 11/3, 11/5	Ch. 10 (M&M) Ch. 16 (C & J)	Planning, monitoring, controlling; reporting; PMIS;	Exam 2*
12	11/8, 11/10, 11/12	Ch. 11,12 (M & M) Ch. 18 (C & J)	Project Control; Project Auditing and Evaluation	Measuring Performance with Earned Value Analysis
13	11/15, 11/17, 11/19	Ch. 12, 13 (M&M) Ch 19-22 (C & J)	Project Termination	Advanced Topics: Enterprise Project Management
14	11/22, 11/24, -	Handouts	Ethics and social responsibility	Ethics Case Studies, Thanksgiving Holiday
15	11/29, 12/1, 12/3	Handouts	Advanced Topics in Project Management	Final Proposal Oral Presentations
16	12/6		Review	Final Proposal Reports

Final Exam Date*: Please check the University's Final Exam Schedule for Fall 2010

* Tentative Schedule; Subject to change