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

ENTC 1203 Introduction to Engineering Technology
Spring 2007

COURSE INFORMATION

Prerequisite: none
Meeting Times: F 1:00-1:50 p.m. (Lecture), F 2:00-4:30 p.m. (Laboratory)
Meeting Places: ST 214, TBA (Tours).

PROFESSOR INFORMATION

Dr. Ruby Mehrubeoglu (Dr. M.)
Office Address: ST 222B,
Office Phone: (361) 825-3378, FAX Number: (361) 825-5848
Office Hours: TR 2:00 – 5:00 pm, and by appointment
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TEXTBOOKS

1. Introduction to Engineering Technology, Robert J. Pond, 6th Edition, Prentice Hall, 2005.
2. Introduction to Engineering Technology and Engineering, V. Hawks and A. Strong, Prentice Hall, 2001.

COURSE DESCRIPTION

Engineering technology careers; professional and ethical responsibilities; technical laboratories and skills; solving engineering problems; health and safety issues; environmental issues; overviews of industrial equipment; plant tours. Prerequisite: None. Fall, Spring.

STUDENT LEARNING OUTCOMES

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

- Describe the roles and responsibilities of engineering technologists, and what is expected of them.
- Define experimental and data collection procedures used in the technical laboratory.
- Identify and apply the basic principles of engineering problem solving.
- Describe the operations and applications of industrial equipment.
- Describe and identify environmental, health and safety issues.
- Define professional and ethical responsibilities in the engineering profession.
- Analyze ethical issues in case studies.
- Demonstrate an ability to communicate effectively.

INSTRUCTIONAL METHODS

Methods and activities for instruction include the following: lectures, invited speakers, group discussions, homework assignments, tours of local industries, reports, exams, research, and final oral presentation.

ASSESSMENT
Assessment is based on pop quizzes, two exams, tour reports, homework, and a final exam. 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**
Pop Quizzes	5		90 ≤ total	A
Exam 1	20		80 ≤ total < 90	B
Exam 2	25		70 ≤ total < 80	C
Tour reports	10		60 ≤ total < 70	D
Homework	10		total < 60	F
Final Presentation	5			
Final Exam	25			
Total	100			

MAKEUP EXAMINATIONS
No makeup examinations will be given except in the case of a documented extreme emergency. Makeup exams will be different from the regular exams and hence more difficult.

SUPPORT SERVICES FOR STUDENTS WITH DISABILITY
Refer to the University Catalog.

ATTENDANCE POLICY
You are advised to attend all lectures and participate in all field trips. If you miss a class period, you are responsible for whatever is covered or announced during your absence. If you miss a field trip, you will be asked to do a research paper.

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

ASSIGNMENTS
Late assignments are will not be accepted. The student will receive a zero on assignments that are turned in after the due date unless a written or electronic (e-mail) permission is secured from the instructor prior to the due date. Permission will be granted only in extreme situations.

FIELD TRIPS
Course requirements include participation in tours to local and/or regional industries. A major objective of the tours is to get familiar with the responsibilities of technicians, technologists, and engineers working in various technical positions. Another goal is to get familiar with the operations, equipment, and facilities of industrial plants. Tours will be normally scheduled during the laboratory time. There will be 3 to 5 field trips during the semester.
SAFETY: The safety of students, faculty, staff and visitors to the ET laboratories is of paramount importance to the ET programs. You must follow safety procedures and use personal protective equipment as required in each laboratory. Any student that attempts to use equipment

without authorization or that violates any safety policy or regulation will be immediately removed from the laboratory.

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.

TENTATIVE **WEEKLY SCHEDULE***

WEEK	Date	TEXTBOOK Readings	Topics	Laboratory Tentative Schedule*
1	01/12	Ch. 1 (Pond)	Introduction to ET	Safety in the Lab
2	01/19	Ch. 2 (Pond)	ET Career Choices	Using MS Word and Excel
3	01/26	Ch. 3 (Pond)	Preparing for ETs	Using MS PowerPoint
4	02/02	Ch. 1, 2, 3, 4 (Hawks & Strong)	Engineer vs. Technologist, expectations, goals	**Tour 1***
5	02/09	Ch. 5, 6, 7 (Hawks & Strong)	Solving Problems using the Scientific Method	Design Problem using the Scientific Method/Engineering Problem Solving , MS Excel Functions;
6	02/16	Ch. 5 (Pond)	Measurement Systems	**Exam 1*, Guest Speaker***
7	02/23	Ch. 8, 9, 10 (Hawks & Strong)	Data presentation: Graphs, Charts, Diagrams	**Tour 2***
8	03/02	Ch. 7 (Pond)	Technical Laboratory	The 7-Segment Display Lab Exercise
9	03/09	Ch. 4 (Pond)	The Calculator	Calculator Exercises
10	03/16	**S P R I N G B R E A K**		
11	03/23	Ch. 8 (Pond)	Personal Computer, Computer Networks, Internet,	Using the Internet
12	03/30	Ch. 9 (Pond)	Industrial Automation. PLCs	**Exam 2*, Guest Speaker***
13	04/06	Ch. 11, 12, 13 (Hawks & Strong)	Elementary Statistics, ET and Environmental Issues	**Tour 3***
14	04/13	Ch. 10 (Pond)	Future in Technology	Math Exercises for Solving Engineering Problems; Introduction to MATLAB
15	04/20	Ch. 14, 15, 16 (Hawks & Strong)	Project Management, Engineering Economics	**Tour 4***
16	04/27	Ch. 17, 18 (Hawks & Strong) + Review	Technical Writing; Lifelong Learning	Student PowerPoint Presentations
	Final Exam: Wednesday, 9 May 2007, Time: 2:00-4:30 p.m.			
* Subject to change based on availability				