

**Introduction to Engineering**  
**CE 1104, CSE 1104, EE 1104, IE 1104, MAE 1104**  
**Fall Semester 2009**  
**M 4:00 - 4:50pm; T 9:30 - 10:20am; T 4:00-4:50pm**  
**100 Nedderman Hall**

**Instructors:** CE Department instructor: Dr. Jim Williams [jimwilliams@uta.edu](mailto:jimwilliams@uta.edu)  
CSE Department instructor: Dr. Linda Barasch [barasch@uta.edu](mailto:barasch@uta.edu)  
EE Department instructor: Dr. Jonathan Bredow [jbredow@uta.edu](mailto:jbredow@uta.edu)  
IE Department instructor: Dr. Bonnie Boardman [boardman@uta.edu](mailto:boardman@uta.edu)  
MAE Department instructor: Dr. Ray Wimberly [wimberly@uta.edu](mailto:wimberly@uta.edu)

**Your instructor:** \_\_\_\_\_ **email:** \_\_\_\_\_

**Website:** <http://WebCT.uta.edu> See this website for recap of assignments & class materials.

**Course Description:** Introduction to basic engineering concepts. Students will become familiar with engineering and its many sub-fields, ethical responsibilities, creativity and design.

**Course Objectives:** This course focuses on familiarizing new College of Engineering students to engineering as a discipline in general and engineering at UTA in particular. The intention is to prepare class members to be successful students at UTA as well as successful engineers or computer scientists in their chosen professions.

**Student Learning Outcomes:**

Since 1104 is intended as an introductory course and is taken by all new students in the College of Engineering, at the completion of the course students will have gained the following knowledge and skills:

- To understand the nature of each of the engineering programs offered to undergraduates at UTA, to appreciate the breadth of the field and make an intelligent choice of major.
- To appreciate engineering ethics and professionalism and the need for clear written and oral communication in engineering.
- To work in multi-disciplinary teams to carry out a design project.
- To know about UT Arlington, the College of Engineering and opportunities for participation and assistance.

**Tentative Course Topics:**

Week 1: 8/24 & 8/25 - Class introduction, structure of engineering program

Week 2: 8/31 & 9/1 - Focus on catalog issues, the engineering profession

Week 3: *No classes* 9/7 & 9/8

Week 4: 9/14 & 9/15 - Logbook / Team Building

Week 5: 9/21 & 9/22 – Project assignment, Team contract

Week 6: 9/28 & 9/29 - Team activity

Week 7: 10/5 & 10/6 - Midterm

Week 8: 10/12 & 10/13- Engineering ethics, engineering licensure

Week 9: 10/19 & 10/20 - Engineering ethics continued (break-out sessions)

Week 10: 10/26 & 10/27- Senior student panel (Last date to drop classes: 10/30)

Week 11: 11/2 & 11/3 - Introduction to industrial engineering and project work

Week 12: 11/9 & 11/10 - Introduction to electrical engineering and computer science & engineering

Week 13: 11/16 & 11/17 - Introduction to mechanical and aerospace engineering and civil engineering

Week 14: 11/23 & 11/24 - Project demonstration

Week 15: 11/30 & 12/1 - Industry panel discussion

Week 16: 12/7 to 12/12 - Finals held according to University's Final Exam Schedule

For Class: Monday 4:00, final exam will be held Monday, December 7<sup>th</sup>, 11:00am – 1:30pm

For Class: Tuesday 9:30, final exam will be held Tuesday, December 8<sup>th</sup>, 8:00am – 10:30am

For Class: Tuesday 4:00, final exam will be held Tuesday, December 8<sup>th</sup>, 2:00pm – 4:30pm

**Required Texts:**

UT Arlington's Introduction to Engineering, Prentice-Hall (ISBN-13 978-0-536-42141-9, ISBN-10 0-536-42141-2)

Note that Self-Tests for each of the chapters of this text are available on WebCT.

**Course Requirements:**

**Attendance** – Timely attendance in this class is expected. It is important that class be started on time and proceed with minimal interruptions. You will be required to swipe your UTA ID (MAV Express) card at the beginning of every class. You will lose 8 points off your final point total for each absence, and 4 points for each tardy. More than 10 minutes late will count as an absence. Problems with the attendance score must be brought to the attention of the responsible faculty within two weeks of it being reported on WebCT.

**Homework and activities** – Homework will be given during this course. The purpose of this work is to allow you to gain further insight into the concepts discussed in the course. Homework must be handed in at the designated time; no late homework will be accepted. Homework other than key assignments (described next) plus some class activities will count as 40 points of your final point total (10% of your course grade).

**Key Assignments** – This course is specifically designed to develop your ability to function on a multidisciplinary team, to promote your understanding of professional and ethical responsibility, and to help you understand the need for lifelong learning. Therefore, certain assignments in this course which assess these outcomes must be satisfactorily completed in order to pass the course. These assignments are designated as “key” assignments.

The key assignments are:

- COE ethics statement    0 points            (must be turned in)
- The ethics essay        40 points           (minimum passing score 24)
- The logbook             60 points           (minimum passing score 36)
- The project              100 points         (minimum passing score 60)
- The event reports       20 points           (minimum passing score 12)

In order to pass this class you must pass all key assignments. If any key assignment is not passed, you will not pass the class even if you score perfectly on all exams and other assignments. Tardy key assignments will be accepted for class-passing purposes, but will receive a significant point penalty. In order to pass the class, each key assignment must meet its minimum score requirements. The key assignments, taken together, will be worth 220 points (55% of your course grade).

**Examinations** – There will be a midterm and a final given during this course. There will be no make-up examinations. You must take all tests at their scheduled times. The midterm will count as 80 points (20% of your course grade), the final will count as 60 points (15% of your course grade).

**Grade Allocation:** Course letter grades will be earned based on the following criteria (based on 400 total points): A = 360 points (90%) and above, B = 320 – 359 points (80% - 89%), C = 280 – 319 points (70% - 79%), D = 240 – 279 points (60% - 69%), F = below 240 points (0% - 59%).

To summarize: you will have the opportunity to earn 400 points total over the semester.

|                  |            |
|------------------|------------|
| Assignments      | 40 points  |
| Ethics Statement | 0 points   |
| Ethics Homework  | 40 points  |
| Logbook          | 60 points  |
| Project          | 100 points |
| Event reports    | 20 points  |
| Midterm          | 80 points  |
| Final            | 60 points  |

Points will be subtracted for absences and tardies.

## **University Policies:**

**Student Evaluation of Teaching.** You will be asked to complete feedback forms at the end of the semester.

**Absences Based on Religious Beliefs.** A student who misses an examination, work assignment, or other project due to the observance of a religious holy day will be given the opportunity to complete the work missed. To be eligible for such a make-up, the student must notify his/her instructor in writing within the first 15 days of class. Failure to follow the rules provided above within the time frames listed will result in the absence being considered unexcused.

**Americans with Disabilities Act.** The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 -- The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans With Disabilities Act - (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As faculty members, we are required by law to provide "*reasonable accommodation*" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with *informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels*. For more information contact the Office for Students with Disabilities at 917-272-3364.

**Academic Dishonesty.** It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. It is your responsibility to know University policies on these matters. "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Series 50101, Section 2.2)

**Inclement Weather Policy.** In the event that weather or other conditions are such that normal campus operations could be impeded the following policy will apply for this class. If the University is closed this class will not meet. Any assignments due or examinations scheduled will be due or rescheduled to the very next class period that the class meets. Local media should announce any closings. You can also get information by dialing (972) 601-2049.

**Student Success.** UT Arlington supports a variety of student success programs to help you connect with the university and achieve academic success. They include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

## **Email to Faculty:**

To contact a faculty member, use the email address shown on the top of the syllabus (not the email facility in WebCT). Use as the "subject line": dept / 1104 / section, e.g., CE 1104 M4:00), put your name inside the email message, start with the main point / question of the message. Emails from outside the UT Arlington domain are subject to being treated as Spam by the server and deleted.

**Notice:** The instructors reserve the right to make changes to the course syllabus as necessary. It is the student's responsibility to keep up with changes to the syllabus as posted on the class web site (WebCT).

**Copyright.** Copyright 2009 UTA COE as to this syllabus, all lectures and all materials. Students are prohibited from selling notes taken during this course to (or being paid for taking by) any person or commercial firm without the express written permission of the professor teaching this course.