

Introduction to Engineering Syllabus
CE 1104, CSE 1104, EE 1104, IE 1104, MAE 1104
Fall Semester 2011
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
CSE Department instructor: Dr. Linda Barasch barasch@uta.edu
EE Department instructor: Dr. Jonathan Bredow jbredow@uta.edu
IE Department instructor: Dr. Bonnie Boardman boardman@uta.edu
MAE Department instructor: Dr. Ratan Kumar ratan.kumar@uta.edu

Website: <http://elearn.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:

- List academic resources available on campus
- Explain UT-Arlington policies and procedures related to undergraduate students
- Describe curriculum, research areas and career types in the different engineering professions that you might enter after completing your BS degree at UT-Arlington
- Interact with current UT-Arlington engineering seniors
- Explain the basis for and importance of engineering ethics
- Critique several engineering case studies for ethical and unethical behavior
- Work in multi-disciplinary teams to design and create a device to accomplish a stated goal
- Keep an updated logbook of classroom activities

Tentative Course Topics:

Week 1: 8/29 & 8/30 - Class introduction, structure of engineering program

No classes 9/5 & 9/6

Week 2: 9/12 & 9/13 - Focus on catalog issues, the engineering profession

Week 3: 9/19 & 9/20 - Logbook / Team Building

Week 4: 9/26 & 9/27 – Project assignment, Team contract

Week 5: 10/3 & 10/4 - Team activity

Week 6: 10/10 & 10/11 - Midterm

Week 7: 10/17 & 10/18- Engineering ethics, engineering licensure

Week 8: 10/24 & 10/25 - Engineering ethics continued (break-out sessions)

Week 9: 10/30 & 11/1- Senior student panel

Week 10: 11/7 & 11/8 - Introduction to engineering departments; Introduction to industrial engineering

Week 11: 11/14 & 11/15 - Introduction to electrical engineering and computer science & engineering

Week 12: 11/21 & 11/22 - Introduction to civil engineering; introduction to sustainability

Week 13: 11/28 & 11/29 - Project demonstration

Week 14: 12/5 & 12/6 – Introduction to mechanical and aerospace engineering; wrap-up

Week 15: 12/10 to 12/16 - Finals held according to University's Final Exam Schedule

For Class: Monday 4:00, final exam will be held Wednesday, December 14th, 2:00pm – 4:30pm

For Class: Tuesday 9:30, final exam will be held Tuesday, December 13th, 8:00am – 10:30am

For Class: Tuesday 4:00, final exam will be held Tuesday, December 13th, 2:00pm – 4:30pm

Required Texts:

1. 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 Blackboard.

2. Introduction to Engineering Class Materials

Available at UTA bookstore

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 Blackboard.

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 95 points of your final point total (~25% 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 | 5 points | (must be turned in) |
| ○ The ethics essay | 40 points | (minimum passing score 24) |
| ○ 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. The key assignments, taken together, will be worth 165 points (~40% 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 410 total points): A = 90% and above, B = 80% - 89%, C = 70% - 79%, D = 60% - 69%, F = 0% - 59%.

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

Assignments	95 points
COE Ethics Statement	5 points
Ethics Homework	40 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. The University of Texas at Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. These resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals to resources for any reason, students may contact the Maverick Resource Hotline at 817-272-6107 or visit www.uta.edu/resources for more information.

Email to Faculty:

To contact a faculty member, use the email address shown on the top of the syllabus (not the email facility in Blackboard). 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 (Blackboard).

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