

MAE 4287 - Senior Synthesis and Design I

Spring 2007

Fri 1:00 pm to 2:50 pm - Room 221 WH

INSTRUCTOR: Robert L. Woods Phone: 817 272-2029 E-mail: Woods@uta.edu
304a Woolf Hall Office hours: by appointment

GOALS: This course is intended to be the capstone "design" course in the Mechanical Engineering curriculum. The intent of the project in this course is that the problem is broad enough to encompass multi-disciplinary aspects and is open-ended such that it does not have a unique solution and could be repeated periodically. "Design" is not intended to be restricted to pure mechanical or kinematic aspects but could focus on thermal, fluid, dynamic systems and controls, materials, or power disciplines. Students will be divided into teams with each student responsible for some aspect of the project. Several projects will be made available to the students. Each student will demonstrate competence in computer use including word processing, spreadsheet manipulation, e-mail communication, internet access, and computer library research.

CLASS MEETING SCHEDULE

19 Jan		Organizational meeting
26 Jan		Contracts and proposal writing seminar
2 Feb		Project selection presentations to class
9 Feb		Project management, organization, creativity. Proposals due
16 Feb		no class
23 Feb		Material Selection (Goforth)
2 Mar	A	"Good Design", design integration, design for manufacturing & cost, simplicity
9 Mar		No class
16 Mar		Spring Break
23 Mar	B	Mid-semester project review
30 Mar	A	Concurrent engineering
6 Apr	B	no class
13 Apr		Report writing seminar
20 Apr		Oral presentations lecture
27 Apr		Taped presentation rehearsals
4 May		Oral presentations of Projects, Final written reports due

GRADING POLICY

Grades will be given to individual students, not to projects or teams. A student's grade will be based on the following:

▪ Class attendance	15%
▪ Proposal	10%
▪ Mid-semester review (oral and written)	10%
▪ Faculty Sponsor evaluation	10%
▪ Project Monitor evaluation	5%
▪ Faculty evaluation of oral presentation	10%
▪ Home work	10%
▪ Final written report	<u>30%</u>
	100%

Key Assignments

The following key assignments must be completed in order to get a grade for this course: proposal, mid-semester project review, oral presentation by each individual student, and the final report.

Teams Leads are required to meet with project monitor on a bi-weekly basis to give status reports.

American 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 a faculty member, I am 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**. If you require an accommodation based on disability, I would like to meet with you in the privacy of my office during the first week of the semester to make sure that you are properly accommodated.

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.

"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 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, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)