

MAE 1312-001

Engineering Mechanics – Statics

Fall 2009

MWF 9.00 –9.50 am

WH 311

Instructor: U. S. Satyanand, Ph.D.

Office: WH 323H

Office Hours: MWF 8.30-9.00 am and 9.50-10.20 am. or by appointment

Phone: 817-897-1269 email: uss41@uta.edu

Course Website URL: <http://www-woolf.uta.edu>

username: password:

Textbook:

"Engineering Mechanics – Statics", XII ed; Hibbeler, R.C.; Pearson Prentice Hall,

Course objectives:

To study the fundamental principles of mechanics and to develop the ability to analyze conditions of equilibrium and forces on a variety of structures and engineering applications.

Course Prerequisites:

Physics 1443 and Calculus I (Math 1426)

Attendance and Drop Policy:

Attendance required. Drop policy as specified in the UTA catalog.

If a student misses a class, it is his/her responsibility to make up the missed class (i.e. get the course notes, assignments, or announcements from other students).

Course Description:

A study of forces and force systems, resultants, and components of force systems, forces due to friction, conditions of equilibrium, forces acting on trusses and frame structures, centroids and moments of inertia, basic principles of virtual work.

Homework:

Homework problems from the text book are assigned. See the course website.

Late and tardy home works are not accepted.

Solve the homework problems **independently** to get better trained for tests and exam.

Tests and exam:

3 monthly tests and a final exam (comprehensive-selective chapters)

Grading:

20% for home work, 40% for quizzes, 40% for final.

Other Information:

Students are expected to read assignments before class, answer questions in class, and participate in class discussions.

Special requirements for preparing and submitting homework assignments:

Paper: Use 8-1/2" x 11" paper. Write on one side only. Draw margin lines on all four sides. Draw four boxes at top for course number, date, your name (last name first) and page number, respectively.

Writing: Type or hand letter (legibly). Write problem number and text page number. Write problem statement followed by a line across page between margins.

Sketch neatly using straight and circular edges. Freehand sketches are not acceptable.

Write solution in logical sequence showing all steps. Write equation in symbols first before substituting in numbers. Define symbols or write equation number from text.

Box-in your final answers.

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, here 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.

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

“University Authorized Absences” and “Observance of Religious Holidays” are as stated in the UTA Catalog. “Statement on Ethics, Professionalism and Conduct of Engineering Students” (attached) applies to all engineering students. “Cheating: Definitions and Consequences” is published by the Undergraduate Assembly, Student Congress and Research and Evaluation Office/Student Affairs. See also Regents Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22.