

De Anza College – Winter 2015

Engineering D035:01 STATICS

Instructor: Maamar Zoubeidi email: zoubeidimaamar@fhda.edu

Class: TTh 3:00PM - 4:15PM Room S48

TTh 4:30PM – 5:45PM Room S48

Office Hours: T 2:00 -3:00 PM Room S48

Text book: Vector Mechanics for Engineers – STATICS 10th Edition by Ferdinand Beer, E. Russell Johnston Jr. and David Mazurek, from McGrawHill.

Course objectives

- The principles of STATICS as applied to particle and rigid bodies in two and three dimensions under concentrated and distributed force systems.
- Equilibrium conditions.
- Internal forces in trusses and beams.
- Determination of centroids and moments of inertia of areas and masses.

Class Organization and Conduct

The content and schedule of the classes is as shown in the calendar* below.

A zero will be recorded for an exam or quiz not taken when it is scheduled.

All tests (quizzes, exams and final) are closed book tests. Two pages of notes (each 8.5 x 11 inches, both sides) without problem solutions are allowed to be used during the tests and final.

Homework: Homework will be assigned at the end of every class; it is due a week later.

Quizzes: Unannounced quizzes, for a total of 20 points, will be given at any time during the class period. **No make-ups** for missed quizzes.

Midterm: One midterm, with 35 points, will be given on the date listed on the calendar. There are **no exam make-ups, except by prior arrangement** with the instructor.

Final Exam: A comprehensive final exam, 45 points. There will be **no make-ups final exam.**

Grading:

The course grade will be computed as follows:

Final Exam	45 points
Midterm	35 points
Quizzes	20 points

90% - 100%: A

80% - 89%: B

65% - 79%: C

55% - 64%: D

Less than 55%: F

Attendance: You are expected to attend all classes, and be on time. Students may be dropped from the class after the 3rd absence unless prior arrangements are made.

Other: Talking and other disruptions during class, such as cell phones, eating or drinking, will not be tolerated. **Cell phones are to be turned off and stowed in your backpack.** Anyone caught cheating on a test or quiz will receive an automatic 0 for that assignment and be reported to the PSME Dean.

Class Schedule (tentative schedule).

This is a rough day-by-day schedule, we may get to be ahead or behind by a class or two at given points in the quarter.

Day, Date	Topic
T, 1/6	Introduction
Th, 1/8	Fundamental concepts and principles
T, 1/13	Components of a force
Th, 1/15	Equilibrium of a particle and forces in space
T, 1/20	Moment of a force about a point
Th, 1/22	Moment of a force about an axis
T, 1/27	Couples
Th, 1/29	Equivalent force systems
T, 2/3	Equilibrium of rigid body in 2 D
Th, 2/5	Equilibrium of rigid body in 3D
T, 2/10	Centroids, lines, areas, distributed forces
Th, 2/12	Analysis of trusses: method of joints
T, 2/17	Exam # 1
Th, 2/19	Analysis of trusses, method of joints – Cont.
T, 2/24	Analysis of trusses: method of sections
Th, 2/26	Analysis of frames
T, 3/3	Internal forces in beams
Th, 3/5	Moments of inertia of areas; radius of gyration, polar moments of inertia
T, 3/10	Parallel axis theorem, Moment of inertia of masses
Th, 3/12	Friction
T, 3/17	Review
Th, 3/19	Review
	Final Exam

* This syllabus and schedule are subject to changes.