

PHYS 387 Statics

Truman State University - Fall 1999

Meetings: MWF 9:30-10:20 am, Barnett Hall 264

Instructor: Rob Salgado
office: Barnett Hall 263
voice: (660)-785-4072
email: rsalgado@truman.edu
WWW: <http://www2.truman.edu/~rsalgado/>

Office hours: MWThF 10:30-11:30, T 1:30-3:30
or DROP BY MY OFFICE or MAKE AN APPOINTMENT.

Catalog Description: Engineering statics. Resultant of force systems, centroids, equilibrium, stresses in structures, friction, moments of inertia, products of inertia. [Prerequisite: PHYS 271. Co-requisite: MATH 264.]

Method:

Mon, Wed: I will lecture and lead you through the course material.

Fri: is "Problem Day".

We will begin with a very-short 5-min quiz. Then, we will collectively discuss some of the assigned problems. This is designed to help you further develop your ability to solve problems. This will also help you to do the homework.

- Homework is due at the start of class on Monday. I will provide a set of solutions. Students will take turns grading the homework.

Textbook: Bedford and Fowler. *Statics: Engineering Mechanics*

If you are not completely happy with the textbook, find another one from the library! (I did this for every class I took!)

Electronic Materials: I will maintain a webpage that lists the assigned problems and, possibly, solutions. Please refer to:

<http://www2.truman.edu/~rsalgado/387/>

Homework: You are encouraged to work together on the homework. However, please do not copy your friend's homework. Do your own write-up.

Exams: There are FOUR one-hour exams, tentatively scheduled as

Exam 1 MON, 09/20, in class

Exam 2 MON, 10/18, in class

Exam 3 MON, 11/22, in class

Exam 4 FRI, 12/10, 9:30a-11:20a

Each exam will be based on a range of chapters covered in the course. The last exam is not "cumulative"... however, it does rely on the material covered on previous exams. If you think that you will have a conflict with a scheduled exam, contact me in advance of the exam.

Grades:

- 25% Homework and Participation
- 15% Quizzes
- 60% Exams ($4 \times 15\%$)

This class is not graded on a curve.

A=90+, B=80+, C=70+, D=60+, F<60.

(ROUGH) Course outline

- week of 08/23: Introduction (Ch. 1), start of Vectors (Ch. 2)
- week of 08/30: end of Vectors (Ch. 2), start of Forces (Ch. 3)
- week of 09/06: [MON is Labor Day] end of Forces (Ch. 3)
- week of 09/13: System of Forces and Moments (Ch. 4)
- week of 09/20: [[EXAM 1]]; start of Objects in Equilibrium (Ch. 5)
- week of 09/27: end of Objects in Equilibrium (Ch. 5)
- week of 10/04: Structures in Equilibrium: Trusses (Ch. 6) [FRI no class]
- week of 10/11: Structures in Equilibrium: Frames and Machines (Ch. 6)
- week of 10/18: [[EXAM 2]]; start of Centroids and Center of Mass (Ch. 7)
- week of 10/25: end of Centroids and Center of Mass (Ch. 7)
start of Moments of Inertia (Ch. 8)
- week of 11/01: end of Moments of Inertia (Ch. 8)
- week of 11/08: start of Distributed forces (Ch. 9)
- week of 11/15: end Distributed forces (Ch. 9)
- week of 11/22: [[EXAM 3]]; [WED-FRI is Thanksgiving]
- week of 11/29: Friction (Ch. 10).
start of Virtual Work and Potential Energy. (Ch. 11)
- week of 12/06: end of Virtual Work and Potential Energy. (Ch. 11)
[WED is Reading Day] [[EXAM 4]]