

ENGR 0135 – Statics and Mechanics of Materials 1
Spring 2005, MWF 12 – 12:50 pm (525 BEH)

<http://www.pitt.edu/~hshst7/Courses.htm>

Instructor:

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Office hours: Wednesdays and Fridays 10:00 - 11:30 am and by appointment

Prerequisite:

PHYS 0175: Basic Phys. Sci. & Engr. 2

ENGR 0012: Engr. Computing

Homework:

Homework is due at the start of class and no late homework will be accepted.

HW No.	Homework Assignment	Due Date
1	1-14, 23, 33, 41 2-8, 21	1/12
2	2-38, 42, 44, 49, 57	1/19
3	3-4, 7, 22, 28 4-3, 7, 12, 22, 28	1/26
4	4-36, 40, 41, 48, 51, 58, 61, 67	1/31
5	4-72, 76, 80, 83, 86, 96, 97	2/9
6	5-4, 5, 13, 26, 40, 44, 48	2/16
7	5-52, 54, 65, 74, 80, 81	2/23
8	5-97, 99, 106, 110, 111 6-1, 7, 9	3/16
9	6-14, 17, 20, 29, 51, 62, 71	3/23
10	6-84, 86, 91, 101, 103, 107	4/6
11	7-1, 10, 25, 28, 36, 46, 56, 62	4/13
12	6-111, 114, 120, 137	4/20

Team Project:

Students will work in teams to complete a design project. The output will be a written report describing the results of the project. Further details will be provided.

Overview:

The specific topics of lectures are subject to change.

Week	Topic	Sections
1/5	Introduction	1.1 - 1.7
1/14	Concurrent Force Systems	2.1 - 2.7
1/19	Equilibrium of Concurrent Force Systems	3.1 - 3.4
1/21	Axial Loading: Stress	4.1 - 4.3
1/24	Axial Loading: Strain	4.4
1/28	Axial Loading: Deformation	4.5 - 4.7
1/31	Axial Loading: Deformation	4.8 - 4.9
2/4	Axial Loading: Design	4.10 - 4.11
2/2	Test 1	
2/4	Design Problem 1	
2/7	Moments	5.1 - 5.5
2/11		
2/14	Equivalent Systems	5.6
2/18	Centroids, Centers of Mass, and Distributed Loads	5.7 - 5.8
2/21	Centroids, Centers of Mass, and Distributed Loads	5.9 - 5.11
2/25	Free-body Diagrams	6.1 - 6.2
2/28	Test 2	
3/4	Equilibrium of Rigid and Deformable Bodies	6.3
3/14	Equilibrium of Rigid and Deformable Bodies	6.3
3/18	Frames and Machines	6.4 - 6.5
3/21	Plane Trusses	6.6
3/25	Equilibrium in 3D	6.7
3/28	Test 3	
4/1	Design Problem 2	
4/4	Torsion	7/1 - 7.8
4/8		
4/11	Friction	6.8 - 6.9
4/15		
4/18	Catch-up	
4/22	Review	

Exams:

Three exams and a Final.

The final examination will be on Monday, April 25th, from 10:00 to 11:50 A.M. in R525 Benedum Hall.

Grading:

Each student final grade will be determined based on the following contributions:

Assessment Method	Percent of Final Grade
Homework Assignments	10%
Team Quizzes	10%
3 Term Tests	30%
2 Design Problems	20%
Final Examination	30%

Attendance Policy: Attendance of classes is mandatory. If a student has a valid excuse for missing a class, they must inform the instructor beforehand.

Cellular phones must be turned OFF during class. Repeated disruptions will count as absences.

ACADEMIC HONESTY

Academic honesty means performing all academic work without plagiarism, cheating, lying, tampering, stealing, receiving unauthorized or illegitimate assistance from any other person, or using any source of information that is not common knowledge.

DEPARTMENTAL GRADING POLICY REGARDING COMMUNICATION SKILLS

Thirty percent of the grade on all written assignments (reports / papers) will be based on quality of communication. Spelling, grammar, punctuation, and clarity of writing are evidence of written communication quality.