CONE 211 Engineering Mechanics: Statics (Fall 2014)

: General principles of mechanics; concurrent force systems; statics of particles; equivalent force/moment systems; centroids and center of gravity; equilibrium of rigid bodies; trusses, frames, internal forces in structural members; friction; second moments of areas. Prerequisite: PHYS 2425.

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Office Hour: Monday ~ Friday 11:00am – Noon

Lecture/Lab: M & W & F 10:00 – 10:50 am, AGIT 211

Required Text: Engineering Mechanics: Statics, 13th Ed, Russell C. Hibbeler, Prentice Hall
ISBN-10: 0132915545, ISBN-13: 9780132915540

Course website: www.ioh.pageout.net

Learning Outcomes:

1. Demonstrate proficiency in Cartesian vector analysis of force systems in two-/three-dimensions.
2. Draw free body diagram of force systems on particles and rigid bodies.
3. Determine the moment about a point and an axis.
4. Develop and apply the equations of equilibrium for solving equilibrium problems, such as beams, frames, and machines.
5. Analyze plane trusses using the method of joints and the method of sections.
6. Determine the center of mass, and the centroids of plane areas and curves.
7. Determine the moments of inertia of composite areas using the parallel-axis theorem.

Course Policies:

- Course Requirements and Grades

Attendance & Participation	10%	Assignments & Quizzes	20%
Exam I	20%	Exam II	20%
Exam III	30%		

- Grading

A	B	C	D	F
100 – 90	89 - 80	79 - 70	69 - 60	59 – 0

- Class Attendance Requirements (*two lateness = one absence*)

# of Absence	0 – 3	4	5
Point Deduction	0	- 5	- 10

- All assignments should be submitted at the beginning of the class and the due date is "next" class meeting time. Only selected HWs will be graded. Unless prior arrangements are worked out with the instructor, a penalty of 50% will be assessed on late assignments submitted within next class meeting time of the due date. After the grace period, ZERO credit towards a final grade.

Academic Dishonesty

: Texas A&M University-Commerce will not condone plagiarism in any form. Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work can result in a "0" on a given assignment(s) or an "F" for the course as well as further administrative sanctions permitted under University policy. You may discuss course work and other course materials with fellow students (except during tests), but it is inappropriate to have another student do your course work or provide you with any portion of it. Guidelines for properly quoting someone else's writings and the proper citing of sources can be found in the APA Publication Manual. If you do not understand the term "plagiarism", or if you have difficulty summarizing or documenting sources, contact your professor for assistance.

Students with Disabilities

: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services, Texas A&M University-Commerce, Gee Library Room 132, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148, StudentDisabilityServices@tamuc.edu

Student Conduct

: All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).* Students are expected to attend all class periods and to be prepared for each class. Students are expected to refrain from any disruptive behaviors during class, which includes but is not limited to working on assignments/projects from another course, reading non-course materials, or using the computer for non-class purposes. Cell phones, iPods, and other electronic devices should be turned off during class.

Class Topics & Schedule:

Week #	Week of	M	W	F
1	25-Aug	Course Introduction	General Principles	General Principles
2	1-Sep	Labor Day	Force Vectors	Force Vectors
3	8-Sep	Force Vectors	Force Vectors	Equilibrium of a Particle
4	15-Sep	Equilibrium of a Particle	Equilibrium of a Particle	Equilibrium of a Particle
5	22-Sep	Force System Resultants	Force System Resultants	Force System Resultants
6	29-Sep	Force System Resultants	Force System Resultants	Exam I
7	6-Oct	Review Exam I	Equilibrium of a Rigid Body	Equilibrium of a Rigid Body
8	13-Oct	Equilibrium of a Rigid Body	Equilibrium of a Rigid Body	Structural Analysis
9	20-Oct	Structural Analysis	Structural Analysis	Structural Analysis
10	27-Oct	Structural Analysis	Internal Forces	Internal Forces
11	3-Nov	Internal Forces	Friction	Friction
12	10-Nov	Center of Gravity and Centroid	Center of Gravity and Centroid	Center of Gravity and Centroid
13	17-Nov	Moments of Inertia	Moments of Inertia	Moments of Inertia
14	24-Nov	Exam II	TGB	TGB
15	1-Dec	Review Exam II	Virtual Work	Virtual Work
16	8-Dec	Final Week - Exam III		