ConE 212 Dynamics (Spring 2013)

ConE 212 Dynamics: General principles of Dynamics, including kinematics of a particle, kinetics of a particle-force and acceleration, work and energy, impulse and momentum, vibrations and damping. Prerequisite: ConE 211

Instructor: Ilseok “Eddie” Oh, Ph.D., Associate Professor, Construction Engineering
AGIT-209, Texas A&M University – Commerce
Email: Eddie.Oh@tamuc.edu, Office: (903) 886 – 5468, Fax: (903) 886 – 5960

Office Hour: (M & W) 9:00am – 11:00am (T & R) 9:15am – 10:00am

Lecture/Lab: (T & R) 08:00 – 09:15 am, AGIT 211


Course website: www.ioh.pageout.net

Learning Outcomes:

Upon satisfactory completion of the course, the student will be able to:

- Understand Kinematics and Kinetics of a particle and a rigid body.
- Apply fundamental concepts of mathematics and physics to engineering dynamics problems, and formulate solutions employing Newton’s second law, or Work-Energy methods, or Impulse-Momentum principles.

Course Policies:

- Course Requirements and Grades

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<th>Attendance &amp; Participation</th>
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<th>Assignments &amp; Quizzes</th>
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<td>Exam I</td>
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<td>Exam III</td>
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- Grading

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- Class Attendance Requirements (two lateness = one absence)

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<th># of Absence</th>
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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.

ADA Statement: 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 the Office of Student Disability Resources and Services (Gee Library 132, 903-886-5150, 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:

- Kinematics of a Particle (2)
- Kinetics of a Particle: Force and Acceleration (3)
- Kinetics of a Particle: Work and Energy (3)
- Kinetics of a Particle: Impulse and Momentum (3)
- Planar Kinematics of a Rigid Body (2)
- Planar Kinematics of a Rigid Body: Force and Acceleration (3)
- Planar Kinematics of a Rigid Body: Work and Energy (3)
- Planar Kinematics of a Rigid Body: Impulse and Momentum (3)
- Three-Dimensional Kinematics of a Rigid Body (2)
- Three-Dimensional Kinetics of a Rigid Body (2)
- Vibrations (2)