ME 242
Dynamics
Spring 2011

Instructor: Dr. Thomas Herring Phone: 445-4277
Office: CED 310 Email: herrin32@wnc.edu
Office Hours:
T 12:00 – 2:15 pm
W 1:00 pm -3:30 pm
Th 1:00 pm – 2:15 pm


Connect Access (For online homework)
http://connect.mcgraw-hill.com/class/t_herring_spring_2011

Note: You could also purchase just the Dynamics portion of the book.
Also, there is an online eText version available via www.coursesmart.com at the web address below
http://www.coursesmart.com/0077286464?__instructor=2527379

Prerequisites: ME 241

Meeting Times: T, Th 2:30 pm – 3:45 pm

Grading:
Tests (2) 30%
Final Exam 20%
Homework 25%
Quizzes 25%

95% – 100% A 73% - 75% C
90% - 94% A- 70% - 72% C-
86% - 89% B+ 66% - 69% D+
83% - 85% B 63% - 65% D
80% - 82% B- 60% - 62% D-
76% - 79% C+ Below 60% F

Note that there is no “W” grade on the scale. A “W” will only be given when requested by a student due to extreme circumstances and at the discretion of the instructor.
**Tests:** There will be 2 regular tests; both of them closed book. Students are allowed one 8.5” x 11” sheet of paper for notes and formulas. Construction of this sheet is an excellent way to study for the tests.

**Final Exam:** The final exam will be comprehensive. The percentage score on the final can replace the lower of the 2 regular test scores if it is greater than the lowest test score. Students will be allowed two 8.5” x 11” sheets of paper for notes and formulas.

**Homework:** Homework assignments will be assigned through Connect (http://connect.mcgraw-hill.com/class/t_herring_spring_2011). You must purchase access to Connect either with your text or separately. Assignments are due once per week on Thursday at 11:59 pm. The lowest homework score will be dropped.

**Quizzes:** Quizzes will be given in class approximately once per week (we won’t have quizzes on test weeks). They will consist of a mixture of multiple choice and short answer questions and should take 10 minutes or so to complete. The final quiz score for the semester will be recorded based on class participation. This score is a determined based upon a student’s level of participation in class discussions and interaction with other students.

**Makeup Policy:** If you make me aware of any conflicts in advance it should be easy to arrange makeup times for tests. There is no makeup available for homework or quizzes since solutions will be made available after the due date.

**Extra Credit:** There is no extra credit available.

**Dishonesty in Class:** I don’t anticipate any problems but here’s the policy anyway. Any dishonesty/cheating will result in an F in the course.

**Class Conduct:** Please be respectful of the learning environment, your fellow students, the instructor, and any visitors. This includes entering and leaving the room quietly (especially if arriving late or leaving early), silencing cell phones during class (just leave the room if you need to take the call), and engaging in side conversations not relevant to the course material.

**Disability Statement:** WNC supports providing equal access for students with disabilities. Susan Trist (DSS Coordinator) is available to discuss appropriate academic accommodations that students may require. Please meet with me and contact Susan (445-3278) if you might require any accommodation.

I: Catalog Course Description

Studies kinematics and kinetics of particles and rigid bodies in two and three dimensions; relative motion; work and energy; impulse and momentum.

II: Course Objectives

Studies kinematics and kinetics of particles and rigid bodies in two and three dimensions; relative motion; work and energy; impulse and momentum.

- This course introduces engineering students to dynamics of particles and rigid bodies. Methods (kinematic relationships, Newton's laws, conservation of energy, momentum, and angular momentum) for analyzing the motion of particles and bodies are learned. Students must have
the ability to: a) Determine the kinematic relationships between position, velocity, and acceleration for two-dimensional motion of systems of particles and rigid bodies, b) Apply Newton's equation in two dimensions to calculate the motion due to applied forces or to calculate the forces resulting from a specified motion, c) Analyze the two dimensional motion of particles and rigid bodies using conservation laws for energy, momentum, and angular momentum.

III: Course Linkage

Linkage of course to educational program mission and at least one educational program outcome.

ME242 fills a degree requirement for the Associate of Science with Engineering emphasis, for which the mission is to prepare students for successful transfer into civil, chemical, computer, electrical, geological, mechanical, metallurgical, or mining engineering, or computer science, or engineering physics. ME 242 addresses the specific program student learning outcome: • [Students] are able to identify, formulate and solve engineering problems