Instructor: Frederick Carlson, 200 CAMP, 268-6580, Carlson@clarkson.edu

Web site: www.clarkson.edu/~fcarlson/

Office hours: Posted outside my office, anytime I’m in my office, or by appointment.

Texts: Handouts, ME341 & ME 411 course books.

Prerequisites: ME 341 or AE/ME 350: Corequisite; ME 411 or consent of instructor.

Class schedule: Lecture: CB176 Wednesday 2:30 pm – 3:45 pm
Laboratory: CB172 Wednesday 11:00 am – 12:15 pm

Objectives: 1. Learn the fundamental theory behind the finite element method.
2. Develop computer based models of physical systems using the method.

Course learning outcomes: [ABET criteria] Students must demonstrate ability to:

Outcome 1: [a] apply knowledge of mathematics, science, and engineering,
Outcome 2: [e] identify, formulate, and solve engineering problems,
Outcome 3: [g] communicate effectively, and,
Outcome 4: [k] use the techniques, skills, and modern engineering tools necessary for engineering practice.

Assessment:

30% Laboratory Reports (4) and unannounced quizzes in class..
20% Project Report
50% Exams (2 @ 25% / exam). Sample problems similar to lab assignments and lectures. Open book and notes.

Comments: All questions regarding grades must be resolved within one week after graded materials are returned. No changes will be made after that time. Graded material is due according to the Course Schedule. Late reports will receive reduced grades. Unexcused absences from exams will result in a zero grade.

Topics:

1. Lectures on finite element theory and applications.
2. Laboratory assignments designed to develop finite element modeling skills.

Attendance: Regular attendance and class participation are required.

Email: Please use your Clarkson email account. I expect a reasonable degree of professionalism in all correspondence. The subject line should always start with ‘ME442’. Use proper spelling, punctuation, and grammar.

Prepared by: Frederick Carlson (December 2011)