

ASEN 5007 Introduction to Finite Element Methods

Homework Assignment #2 (Chapters 4-5 of Notes)

Due Thursday September 10, 2009 (Sep 17 for CAETE students)

*Please do not forget to attach this cover sheet to your returned homework
and write the group names on it*

Do four Exercises:

4.5 (requires programming, see note below)

5.1 (short)

5.2

5.3 or 5.4 (pick one)

Grading weights: listed at the start of each exercise. See Preface for difficulty ratings.

Homework presentation guidelines are posted on web site; also on the back of HW#1 assignment. For presentation of computer work please see those guidelines.

The *Mathematica* Notebook file `ExampleTruss.nb` is available on the web. [Go to index of Chapter 4 and click on the link for downloading the source. If you experience trouble with that file (some browsers are sensitive to file extensions) click on the link with file extension `.txt`]

Ex 5.4 uses the notion of direction cosines. If rusty in that topic, reread any Calculus book that defines those quantities in 3D.