MAE671/CE671: Introduction to Finite Element Analysis

Midterm Instructions

• The goal of this exam is to evaluate your understanding of the basic concepts and mathematical framework utilized in the finite element method. If you do not understand the question, but can illustrate your understanding of course material by working through a related problem, then do that (as opposed to struggling to answer something you really do not understand.)

• Work out enough detail to be convincing that you fully understand the concepts and manipulations involved, but you do not need to provide every single detail.

• Clearly indicate the "end result" for each part by labeling it accordingly (e.g. "**Ans. 1(a) =** ").

• ***Write only on the sheet of paper provided for that problem (including the back):*** the problems will be graded independently (and in different physical locations). That is, do not continue one problem on a different sheet (used to answer a different problem). You may utilize blank scratch paper, but only turn in a single sheet of paper - the sheet with the exam question.

• ***Put your name on every page:*** each problem will be graded independently. Only one page per problem will be graded.

• ***DO NOT PANIC, OR WORRY ABOUT EARNING POINTS.*** (Note that more difficult questions are weighted less!). Simply use this framework of this exam to tell me what you know.