ME 448 – Mechanical Systems Analysis
Course Information

Instructor: Dr. Krishnan Suresh; suresh@engr.wisc.edu
Room 3144, ECB

Objective: Mathematical modeling and computer simulation of mechanical systems.

Target audience: Seniors and graduate students.

Class Hours: Tue-Th 11 AM to 12:30 PM; Room 2345 Engineering Hall

Office Hours: Tue 3 to 5 pm; ECB 3144

Textbook: None.

References: See ME 448 references in Wendt library.

Course web-site: http://homepages.cae.wisc.edu/~suresh/ME448Website/ME448Home.htm

CAE tools: SolidWorks/ COSMOS, FEMLAB, MATLAB, SIMULINK

Workload: Home-works (includes computer projects): 20 Points
Mid-term: 20 Points
Projects (two?): 30 Points
Final exam: 30 Points

Pre-requisites:
- ME 232 (CAD)
- ME 306 (Mechanics)
- ME 364 (Heat Transfer)
- Programming experience (ex: MATLAB)
- ME 340 (Dynamic Systems)
- Math 319 (Differential equations)
- Math 320 (Linear Algebra)

What this course will teach you:
- Modeling of physical systems: boundary/ initial value problems, etc
- Theoretical analysis and concepts
- Computer analysis methodology and pitfalls
- Hands on CAD/ CAE modeling
- A few advanced CAE techniques