ISEN 495-0-20 / ME 495-0-27 - Industrial Energy Management and Utilization

Spring quarter 2014

Instructor:
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Time and location: Tuesdays and Thursdays 2-3:20 pm

Prerequisites: Thermodynamics-I (ME 220 or equivalent) or graduate standing or consent of the instructor

Description:
As time permits, in this course the students will learn about historical energy usage; energy conservation vs. energy management; elements of an energy audit; data normalization of energy consumption using product-mix data or degree days etc.; utility rate structures & deregulation; energy economics; energy conservation opportunities in thermal-fluid Systems; combustion systems; steam & condensate Systems; energy recovery systems; industrial insulation; and electrical energy conservation

Tentative Grading:
Homework and special assignments: 30%
Energy Audit: 20%
Contemporary Energy Topic of student/team choice and presentation: 15%
Exams: 35% (midterm 15% and a final 20%)