

# Course Schedule - Fall 2008

## Mechanical Engineering

404 ***Intermediate Thermodynamics*** credit: 4 hours.

Classical thermodynamics, including the TdS equations and the Maxwell relations; development of thermodynamic property relations, behavior of real gases, thermodynamics of mixtures, phase equilibrium and chemical reactions and equilibrium with an emphasis on combustion reactions; statistical thermodynamics including the effect of molecular and atomic structure, statistical concepts and distributions, calculation of thermodynamic properties of gas-phase atoms and molecules, kinetic theory of gases, and an introduction to vibrations in crystals and the electron gas in metals; selected applications such as the use of statistical thermodynamics in laser spectroscopic analysis of gas-phase properties. Credit is not given for both ME 404 and any of PHYS 427, CHEM 442, or CHEM 444. Prerequisite: ME 300.

CRN	Type	Section	Time	Days	Location	Instructor
30302	lecture-discussion	R	01:00 PM - 02:50 PM	TR	room 243 Mechanical Engineering Bldg	Glumac, N