THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Heat Transfer

AEROENG 3580

Credit Hours:
3.00

Course Levels:
Undergraduate (1000-5000 level)

Course Components:
Lecture
Lab

Course Description:
Fundamentals of conduction, convection, and radiation.

Prerequisites and Co-requisites:
Prereq: 3560 (560 and 570), and enrollment as AeroEng-BS student (No pre-majors can enroll in this class).

Course Goals / Objectives:
- A fluency with the subject matter including: conduction, convection, and radiation.

Course Topics:
- Viscosity and Navier-Stokes equations
- Couette Flow
- Poiseuille Flow and other closed form solutions
- Boundary Layers
- Blasius, Falkner-Skan
- Compressible boundary layers
- Reynolds analogy
- Boundary Layer transition and turbulence
- Conduction
- Convection
- Radiation

Designation:
Required