THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Advanced Propulsion Problems

AEROENG 8851

Credit Hours:
3.00 - 3.00

Course Levels:
Graduate (5000-8000 level)

Course Components:
Lecture

Course Description:
Detailed discussion of current problems in air breathing propulsion with major emphasis on technical papers available from the current archival literature.

Prerequisites and Co-requisites:
Prereq: 5751 (751) or MechEng 7527 (727), or permission of instructor.

Course Goals / Objectives:
- To make the student keenly aware of the current archival literature in multiple subject areas important to aeropropulsion
- To teach the student how to critically evaluate specific publications appearing in current archival literature
- To teach the student how to handle the pressure associated with critical evaluation of a particular research topic
- Provide each student with the experience of presenting to a technical audience a research paper and to answer the technical questions associated with the research

Course Topics:
- Status of current experimental capability for measurement of gas turbine film cooling effectiveness
- Convective heat transfer and aerodynamics for gas turbines
- Current status of compressor and fan aerodynamics associated with blade tip/shroud rubs
- An additional approximately thirty archival papers dealing with the gas turbine industry will be presented by individual students with each student presenting two papers

Designation:
Elective