

ASEN 5519-041: MINI JET ENGINE

Interested in designing and building a mini jet engine?

- This course, part one of a two-course sequence (**Spring '09 and Fall '09**), is designed to teach gas turbine engine design using a hands-on approach. This semester will focus on design, as well as testing of a purchased engine.
- The goal of this project is to design a commercially viable gas turbine engine for either the Military UAV market (improved performance) or Hobby RCA market (reduced cost).



TYPICAL ENGINES IN THIS SIZE CLASS:	
THRUST:	80-200 N
T/W RATIO:	4-9
MASS:	2-4 KG
COMPRESSOR STAGES:	1-2
COMPRESSION RATIO:	3-4
RPM:	100,000-200,000
DIAMETER	4-6 INCHES
LENGTH	< 12 INCHES
COMMERCIAL PRICE:	\$2,500-\$6,000

SKILLS REQUIRED
PROPULSION
STRUCTURES
MANUFACTURING
DESIGN SOFTWARE USE/DEVELOPMENT
ELECTRONICS

An engineering prototype of the engine will be constructed and tested in the fall semester.

This course (#25757) is open to all engineering majors, however space is limited. Class meets for 1 hour of lecture (M 9-10) and 4 hours of lab (Tu/Th 8-10) each week. Students will work closely with faculty, as well as a government/industry advisory board to accomplish the project. If interested or have any questions, please contact Profs. Ryan Starkey (rstarkey@colorado.edu) or Joe Tanner (Joe.Tanner@colorado.edu) for more information.

NOTE: This two-semester course can be used to satisfy the AES/MS requirement for 6 credits of project work. Students may also work during summer '09 for independent study credit.