AVIATION SCIENCES (AVS)

AVS 4318  Avionics System Design  (3)
Cross-listed as ELC 4318
See ELC 4318 for course information.

AVS 4321  Energy Economics  (3)
Cross-listed as ECO 4321
See ECO 4321 for course information.

AVS 4323  The Environment and Economic Analysis  (3)
Cross-listed as ECO 4323, ENV 4323
See ENV 4323 for course information.

AVS 4386  Remote Sensing  (3)
Cross-listed as BIO 4386, ENV 4386, GEO 4386
See GEO 4386 for course information.

AVS 4485  Introduction to Geographic Information Systems  (4)
Cross-listed as ENV 4384, ENV 4485, GEO 4485
See GEO 4485 for course information.

AVS 4487  Advanced GIS Analysis  (4)
Cross-listed as AVS 4387, ENV 4487, GEO 4487
See ENV 4487 for course information.

AVS 5320  Instrumentation and Test Stand Laboratory  (3)
Pre-requisite(s): AVS 4305 and credit or concurrent enrollment in AVS
4320 and 4330
A laboratory-based course where students gain hands-on experience
with (i) modern equipment used to measure air pollution levels;(ii)
contemporary engine test equipment for both piston and turbine aircraft
engines, including dynamometers and exhaust emission analysis
instrumentation; and (iii) the computer software and hardware to enable
data collection and reduction via either data loggers and computer
manipulation, or by direct computer data capture.

AVS 5330  Development of Biofuels in Aviation  (3)
Pre-requisite(s): AVS 1312 (or its equivalent); CHE 1301 or AVS 4330 (or
their equivalents)
Rationale for developing and using biofuels in aviation. History of
the development of biofuels as aviation fuels. History of fossil fuels.
International experience in aviation biofuels. Environmental, economic,
and energy security factors. Technical considerations and testing
procedures including FAA certification procedures.

AVS 5368  Integrated Energy Resource Systems  (3)
Cross-listed as ENV 5368
See ENV 5368 for course information.

AVS 5391  Measurement Methods and Data Analysis for Air
Pollution  (3)
Cross-listed as ENV 5391
See ENV 5391 for course information.

AVS 5393  Atmospheric Chemistry & Physics  (3)
Cross-listed as ENV 5393
See ENV 5393 for course information.

AVS SV99  Research for Master's Thesis  (1-6)
Pre-requisite(s): Consent of instructor
Research, data analysis, writing, and oral defense of an approved
master’s thesis. At least six hours of AVS SV99 are required.