Minor in Aerospace Engineering

Purpose

- To provide a foundation in aerospace engineering
- To help students compete for positions in the aerospace industry

Requirements

The Minor in Aerospace Engineering requires the completion of coursework that totals 18 credit hours. The requirements are separated into two types of courses: 1) courses required of all BSME students, and 2) elective courses in aerospace engineering. The two required courses will contribute 6 credits towards the minor, while the four aerospace engineering elective courses will contribute 12 credits towards the minor. MAE 4990 or MAE 4995 (Undergraduate Research) can be counted as an aerospace engineering elective (3 credit hours maximum) if **prior** to enrolling in MAE 4990/MAE 4995 the student submits a one-page research plan to Prof. Kluever (with MAE faculty advisor signed approval) that demonstrates significant aerospace engineering content. The student must submit a report to their faculty advisor upon completion of the research project.

Students pursuing the minor must take ***at least one*** course from three of the four fundamental areas of the BS in Aerospace Engineering (BSAE) curriculum: 1) aerodynamics, 2) aerospace structures, 3) flight mechanics, and 4) propulsion. If a student applies Undergraduate Research (MAE 4990 or MAE 4995) to the minor, then the remaining 9 credit hours (three courses) must be from three distinct areas of the BSAE curriculum.

Must take both:		
MAE 3400	Fluid Mechanics	3
MAE 3600	Dynamic Systems and Control	3
1. Aerodynamics		
MAE 3440	Aerodynamics I: Incompressible Flow	3
MAE 3450	Aerodynamics II: Compressible Flow	3
MAE 4430	Introduction to Computational Fluid Dynamics and Heat Transfer	3
2. Aerospace Structures		
MAE 3210	Flight Structures Analysis	3
MAE 4280	Introduction to Finite Element Methods	3
MAE 4600	Advanced Mechanics of Materials	3
3. Flight Mechanics		
MAE 3620	Aerospace Vehicle Flight Performance	3
MAE 3630	Space Flight Dynamics	3
MAE 4635	Spacecraft Attitude Dynamics and Control	3
MAE 4690	Aircraft Flight Dynamics	3
4. Propulsion		
MAE 4390	Aerospace Propulsion	3
Undergraduate research		
MAE 4990	Undergraduate Research in Mechanical and Aerospace Engineering	0-6
MAE 4995	Undergraduate Honors Research Mechanical & Aerospace Engineering	1-6

Process

- Meet with your advisor during your sophomore/junior year to plan minor courses into your schedule.
- Submit the application form (list of completed/planned aerospace courses) in the semester before you graduate.
- When completed, the Aerospace Minor will appear on your transcripts.

Contact

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