

Accelerated Undergraduate-Graduate Programs

Aerospace Engineering - Accelerated Undergraduate-Graduate Program (B.S.A.E. / M.S.A.E., M.S.M.E. or M.S.BM.E)

**College of Engineering and Computer Science
Department of Mechanical and Aerospace Engineering,
Engineering, Room: 381**

<http://www.mae.ucf.edu>

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Admission Requirements

- See Common Program Prerequisites.
- Qualified students may apply after completion of a minimum of 64 credit hours.
- Completion of no more than 96 credit hours.
- Admission to the Accelerated Program does not guarantee formal admission to the MSAE, MSME or MSBME program.
- Admission is not automatic. Interested students may need to be interviewed.

Degree Requirements

- None

1. UCF General Education Program (GEP) (38 hrs)

- See Aerospace Engineering major in catalog for GEP requirements.

A: Communication Foundations

B: Cultural & Historical Foundations

C: Mathematical Foundations

D: Social Foundations

E: Science Foundations

2. Common Program Prerequisites (CPP) (19 hrs)

- See Aerospace Engineering major in the catalog for the CPP requirements.

3. Core Requirements: Basic Level (2 hrs)

- The College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.250 GPA in completing these courses, together with the core requirements, technical elective courses and senior design courses listed. Independent study courses generally do not satisfy major requirements.

EGS 1006C	Introduction to the Engineering Profession	1 hr
EGN 1007C	Engineering Concepts and Methods	1 hr

4. Core Requirements: Advanced Level (51 hrs)

EGN 3310	Engineering Analysis-Statics	3 hrs
EGN 3343	Thermodynamics	3 hrs
EMA 3706	Structure and Properties of Aerospace Materials	3 hrs
EGN 3373	Principles of Electrical Engineering	3 hrs
STA 3032	Probability and Statistics for Engineers	GEP
EAS 3101	Fundamentals of Aerodynamics	3 hrs
EAS 3800C	Aerospace Engineering Measurements	3 hrs
EAS 3810C	Design of Aerospace Experiments	3 hrs
EAS 4105	Flight Mechanics	3 hrs
EAS 4134	High-Speed Aerodynamics	3 hrs
EAS 4300	Aerothermodynamics of Propulsion Systems	3 hrs
EML 3034C	Modeling Methods in Mechanical and Aerospace Engineering	3 hrs
EGM 3601	Solid Mechanics	3 hrs
EAS 4200	Analysis & Design of Aerospace Structures	3 hrs
EGN 3321	Engineering Analysis-Dynamics	3 hrs
EML 4225	Introduction to Vibrations and Controls	3 hrs
EML 3701	Fluid Mechanics I	3 hrs
EML 4142	Heat Transfer	3 hrs

5. Restricted Electives (12 hrs)

- Technical electives should be taken at the 5000 or 6000 level and are available in the BSAE program to address specific student interests in a variety of technical

advisor for a list of the approved technical electives and the semesters when specific courses of this type are to be offered.

■ Please Note: The Accelerated B.S. to M.S. Program allows students to complete a maximum of 12 credit hours of Graduate level course work for technical elective credit.

6. Capstone Requirements (6 hrs)

- These courses are a capstone experience to your engineering program and should be completed in your last 2 major semesters of study.
 - CECS encourages all engineering students to take the Fundamentals Exam during their senior year.
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|-----------|---------------------|-------|
| EAS 4700C | Aerospace Design I | 3 hrs |
| EAS 4710C | Aerospace Design II | 3 hrs |

7. Foreign Language Requirements

Admissions

- Two years of one foreign language in high school, or one year of one foreign language in college (or equivalent proficiency exam) prior to graduation.

Graduation

- None

8. Electives

- None

9. Additional Requirements

- None

10. Required Minors

- None

11. Departmental Exit Requirements

- None

12. University Minimum Exit Requirements

- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed
- 30 of the last 39 hours of course work must be completed in residency at UCF.
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, and nine hours of Summer credit.

Total Undergraduate Hours Required

- 128

Total Combined Hours Required

- 146

Honors In Major

- None

Related Programs

- Mechanical Engineering

Certificates

- None

Related Minors

- Intelligent Robotic Systems (IRS) - Interdisciplinary
- Engineering Leadership

Advising Notes

- The baccalaureate degree will be awarded when program requirements for the BS are met and students have completed a minimum of 128 hours of credit. Students will then be reclassified as graduate students. The MSAE, MSME or MSBME will be awarded on completion of the total program of study.

■ The following will be waived for this joint degree program: The limit of nine hours to be shared between undergraduate and graduate programs. Undergraduate students taking graduate courses must be within nine hours of graduation. Undergraduate students taking graduate courses must not register for more than a total of twelve hours in that semester.

Transfer Notes

- None

Acceptable Substitutes for Transfer Courses

- None

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Shared Courses (12 hrs)

■ Up to 12 credit hours of approved 5000 and 6000 level courses of grades B (3.0) or better may be counted towards the BS and Masters degrees. These 12 credit hours will meet either technical elective or course requirements for the major. Contact the Graduate Coordinator in the Mechanical and Aerospace Engineering department for a list of acceptable courses.

Graduate Courses Link

■ <http://www.graduatecatalog.ucf.edu/content/Courses.aspx>

Program Academic Learning Compacts

■ Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at: http://www.oas.ucf.edu/alc/academic_learning_compacts.htm

Equipment Fees

- Part-Time Student: \$45 per term
- Full-Time Student: \$90 per term