

# BSAE/MSME Accelerated Masters Program (AMP)

The AEM department's Accelerated Masters Program allows highly-motivated BSAE students to complete the requirements for both a BS in aerospace engineering and an MS in mechanical in a five-year period. A student in the program can earn up to <u>six hours</u> of dual-credit towards their BSAE and MSME degrees.

Following successful completion of all requirements for their BSAE, students in AMP are awarded their undergraduate degree. Students then continue taking graduate courses until the requirements for the MS degree are met. Students in AMP are classified as undergraduates until they complete all of the requirements for the undergraduate degree. They cannot hold graduate assistantships until they are classified as graduate students; however, in some cases can use remaining UG scholarship funds for graduate coursework (consult with the Undergraduate Scholarship office).

## Eligibility

Students normally apply to the AMP at the end of their junior year. To be considered for admission, BSAE students must:

- a) have at least a 3.3 GPA;
- b) have completed 90 hours toward their BSAE degree; and
- c) complete an on-line application to the MSME program through the graduate school.

#### **AE Electives Eligible for Dual Credit**

Accepted ME 5XX courses for AEM elective: ME 501, 506, 509, 514, 562, 570, 571, 577 and 585.

#### **MSME Requirements**

MSME curriculum requirements are posted on the graduate page: <u>http://me.eng.ua.edu/graduate/m-s-program/</u>. There are two plans (thesis and non-thesis); both require 30 hours of coursework.

Table 1 shows an example BSAE/MSME AMP course schedule for the third through fifth years. During the last academic year (summer, fall and winter), typically 18 hours would need to be completed to finish the program. Completing in five years is not required. **Students should work with their prospective research advisor or the ME Graduate Program Coordinator during their senior year to appropriately plan their coursework.** 



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## Table 1. An example BSAE/MSME AMP curriculum

Year 3 <sup>*</sup>	
Fall	Spring
AEM 313 Aerodynamics	ME 349 Applied Numerical Methods
AEM 341/351 Aircraft Structures & Lab	AEM 368 Flight Mechanics
AEM 360 Astronautics	AEM 413 Compressible Flow
ME 215 Thermodynamics	HU/L/FA Elective
HU/L/FA Elective	HI/SB Elective
16 hours	15 hours – Apply to AMP
Ye	ear 4
AEM 402 Aerospace Design I	AEM 404 Aerospace Design II
AEM 408 Propulsion	AEM 451 Aircraft Structural Design
AEM 468 Flight Dynamics and Control	HI/SB Elective
AEM 495 Senior Seminar	ME Grad Elective (see list previous page)
AEM Elective (C) <sup>**</sup>	ME Grad Elective (see list previous page)
15 hours	15 hours – Complete BSAE
Ye	ear 5
ME Grad Course	ME Grad Course
ME Grad Course	ME Grad Course
ME 599 or Grad Course	ME 599 or Grad Course
Math Graduate Elective	Math Graduate Elective
12 hours	12 hours – Complete MSME

\*Assumes first two years of BSAE coursework completed as shown on the BSAE flowchart: http://aem.eng.ua.edu/undergraduate/aerospace-engineering/

\*\*The BSAE students must complete six hours of "C" designated courses. Consult with the BSAE advisor.