

# THE UNIVERSITY OF ALABAMA | COLLEGE OF ENGINEERING AEROSPACE ENGINEERING & MECHANICS

TUSCALOOSA, ALABAMA

### **BSME/MSAEM Accelerated Masters Program (AMP)**

The AEM department's Accelerated Masters Program allows highly-motivated BSME students to complete the requirements for both a BS in mechanical engineering and an MS in aerospace engineering and mechanics in a five-year period. A student accepted into the program is allowed to take graduate courses and can earn up to <u>nine hours</u> of dual-credit towards their BSME and MSAEM degrees.

Following successful completion of all requirements for their BSME, 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.

## **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 3.7 GPA if admitted after August 2023;
- b) have completed 90 hours toward their BSME degree including a couple ME 300-level courses in the junior year of the flow chart; and
- c) complete an on-line application to the MSAEM program through the graduate school (two letters of recommendation and a statement of purpose are required by the department).

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

BSME students should consult with the ME program to confirm 500- and 600-level AEM graduate courses may be used to meet the BSME elective requirements. Most AEM graduate-level courses are taught on a one-, two- or four-year rotation; consult the course rotation document found on the MSAEM web page: http://aem.eng.ua.edu/graduate/ms-program/.

### **MSAEM Requirements**

MSAEM curriculum requirements are posted on the graduate page: <a href="http://aem.eng.ua.edu/graduate/ms-program/">http://aem.eng.ua.edu/graduate/ms-program/</a>. There are two plans (thesis and non-thesis); both require 30 hours of coursework which includes:

- six hours core coursework (one Aerospace core course and one Mechanics core course)
- six hours mathematics coursework
- 12 hours of elective coursework
- six hours
  - o thesis research (Plan I) or
  - elective coursework (Plan II) and the completion of a culminating experience project



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By arrangement with a faculty member, students may pursue special topic (or project) courses as elective credits. These appear as AEM 594 in published course schedules but are not open for enrollment without prior arrangement with the instructor.

Table 1 shows an example BSME/MSAEM 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 AEM Graduate Program Coordinator during their senior year to appropriately plan their coursework.

Table 1. An example BSME/MSAEM AMP curriculum

	Year 3 <sup>*</sup>
Fall	Spring
AEM 250 & 251	ME 350 & 351
ME 309	ME 360
ME 349	ME 372
ECE 320	ME 383
HU/L/FA Elective	ME Elective
16 hours	16 hours – Apply to AMP
	Year 4
ME 450	ME 490
ME 460	HU/L/FA Elective
ME 489	HI/SB Elective**
HU/L/FA Elective	AEM 5XX for BSME Elective (if available)
AEM 5XX for BSME Elective	Math Grad Elective for BSME Tech Elective
16 hours	15 hours – Complete MSAE
	Year 5
AEM Grad Core	AEM Grad Core
AEM Grad Elective	AEM Grad Elective
AEM Grad Elective	AEM Grad Elective
Math Graduate Elective	
12 hours	9 hours – Complete MSAEM

<sup>\*</sup>Assumes first two years of BSME coursework completed as shown on the BSME flowchart

<sup>\*\*</sup>Assumes six hours of HI/SB completed prior to junior year