

ACCELERATED BS/MS DEGREE PROGRAM MECHANICAL AND AEROSPACE ENGINEERING

The MAE Accelerated Bachelor's/Master's (ABM) degree program at NCSU is designed to give qualified NCSU undergraduates the opportunity to complete a master's degree in just 12 months beyond the bachelor's degree.

How does it work? Graduate level MAE courses are "*double counted*" to satisfy requirements of both the BS degree and the MS degree. A minimum of three courses (9 semester hours) and a maximum of four courses (12 semester hours) may be counted toward both the undergraduate and graduate degrees.

Undergraduate Admission Requirements for the Accelerated BS/MS Degree Program

- Required GPA at time of ABM Plan of Work submission:
 - minimum overall NCSU GPA of 3.7 and
 - minimum MAE (major) NCSU GPA of 3.5
 - GPA requirements are firm – no exceptions will be made
- Transfer students must complete two semesters as a full-time student at NC State before applying to the ABM program
- ABM Plan of Work should be submitted when finishing up 3rd year (300-level) undergraduate MAE coursework (roughly sixth semester)
- ABM students with an approved Plan of Work will submit their application to the Graduate School in the second to last semester of the undergraduate degree.
- ABM program continuation requirements
 - If the undergraduate overall GPA drops below 3.5 at any point after submitting the ABM Plan of Work, the student will become ineligible to continue in the ABM program
 - A grade of B or better is required for any courses to be counted toward both BS and MS degrees
 - Receiving a B- or lower grade in any "double counted" course makes the course ineligible to double count (students who find themselves in this situation should notify their MAE academic advisor immediately)
 - Students must complete all requirements for the non-thesis MS degree in no more than 12 months after completion of the BS degree

IMPORTANT: The MAE Undergraduate Director of Advising monitors the completion of the undergraduate degree to ensure approved courses were successfully completed. Any deviation from the approved courses taken as an undergraduate student section *requires a new ABM Plan of Work* be completed and approved.

Graduate Admission Procedure for Accelerated BS/MS Degree Program

❑ Step 1: Develop your ABM plan

Consult with your MAE undergraduate advisor on the double-counted *courses completed as an undergraduate student*. The advisor will sign the Plan of Work form, (see last page) once the course plan is set. **Important:** If your plan for double-counted courses changes at any time during the BS portion of the program, you must submit a new ABM Plan of Work for approval.

❑ Step 2: Submit ABM plan to graduate office

Email the signed ABM Plan of Work form to the MAE Graduate Office (mae_gradoffice@ncsu.edu). The MAE Director of Graduate Programs will schedule an advising appointment with the applicant to outline *courses completed as a graduate student*.

❑ Step 3: Apply to graduate school

Once the Director of Graduate Programs approves the ABM Plan of Work, the applicant should prepare to apply for admission to the Graduate Program. **Important:** Undergraduate students **MUST** be admitted to the Graduate Program the semester immediately following the completion of their BS degree. The appropriate time to submit your application is the next to last semester of the undergraduate degree.

❑ Additional Information

- Visit the MAE graduate admissions [How to Apply](#) website to view admission deadlines
- Complete a graduate admission application via the Graduate School's [Application Management](#) portal (applygrad.ncsu.edu/apply)
- Applications **MUST** include an NCSU transcript (unofficial is acceptable), three (3) Letters of Recommendation, and a Personal Statement of Career Interests and Goals
- ABM admission applications do not require GRE test scores

Possible course substitutions¹ during the 4th year for Accelerated BS-MS program

Mechanical Engineering ABM Program	
Original Course in Undergraduate Program	Substitution Course in Graduate Program¹
Technical Elective 1	MAE 5XX or an approved non-MAE 4XX or 5XX level course ²
Technical Elective 2	MAE 5XX or an approved non-MAE 4XX or 5XX level course ²
Technical Elective 3	MAE 5XX or an approved non-MAE 4XX or 5XX level course ²

Aerospace Engineering ABM Program	
Original Course in Undergraduate Program	Substitution Course in Graduate Program¹
Structures Elective	MAE 533 <i>Finite Element Analysis 1</i> or MAE 537 <i>Mechanics of Composite Structures</i>
Math Elective	MA 405 <i>Introduction to Linear Algebra</i> or MA 501 <i>Adv Mathematics for Engineers and Scientists</i>
Propulsion Elective	MAE 504 <i>Fluid Dynamics of Combustion I</i>
Technical Elective 1	MAE 5XX or an approved non-MAE 4XX or 5XX level course ²
Technical Elective 2	MAE 5XX or an approved non-MAE 4XX or 5XX level course ²

Visit the [NCSU Course Catalog](#) to view a complete list of MAE Course Offerings

¹Note when signing up for classes, graduate course availability is subject to change and time conflicts can arise requiring you to modify your ABM plan.

²Approval from the MAE DGP required. Only one non-MAE 4XX course is permitted for graduate credit.

QUESTIONS? Contact the appropriate MAE student advising office

- **MAE Undergraduate Students**, contact the Director of Undergraduate Advising in the [Undergraduate Advising Office](#)
- **MAE Graduate Students**, contact the Director of Graduate Programs in the [Graduate Advising Office](#)

North Carolina State University
The Graduate School

ACCELERATED BACHELOR'S/MASTER'S PLAN OF WORK

To: Dean of The Graduate School

From: Program Director: _____
Director's name/Program name

Student Information:

Name: _____ ID Number: _____ UGPA: _____

Degree/Program: _____ Signature: _____

Courses taken as an *undergraduate student:*

Course Description	Prefix/No.	Hrs	Term
To be double-counted (12 hrs. max):			
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
	Sub-total		
To be applied to Graduate Degree Only (6 hrs. max):			
_____	_____	_____	_____
_____	_____	_____	_____
	Sub-total		

Courses taken as a *graduate student:*

Project Work in Mechanical/Aerospace Engineering	MAE 586	3.0	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
	Sub-total		
	Total		

Undergrad Coord Signature/Date: _____

DGP Signature/Date: _____

****Upload to Slate for Graduate School approval***

September 2022