

ACCELERATED BS/MS DEGREE PROGRAMS IN MECHANICAL AND AEROSPACE ENGINEERING

Purpose

- The Accelerated BS/MS(Thesis)/MS(Non-Thesis) degree program in Mechanical Engineering and in Aerospace Engineering at NCSU is designed to give qualified NCSU undergraduates the opportunity to complete a master's degree in *just one year beyond the bachelor's degree*.
- Its goal is also to attract our best undergraduate students into our graduate program.

Mechanism

- Graduate level courses in the ME or AE curriculum may be “*double counted*” to satisfy both requirements of 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.

Requirements for the Accelerated BS/MS degree program

- A 3.7 or above GPA (overall, as well as in all math, science and engineering courses) at the time of admission (apply in the semester when 92 hours of credit will be accumulated) **and** at the time of undergraduate graduation are required. Transfer students must have completed two semesters as a full-time student at NC State.
- A grade of B or better is required for any courses to be counted toward both degrees. Receiving a B- or lower grade in any “double counted” course makes you ineligible for the Accelerated BS/MS degree program.
- Students must complete all requirements for the MS degree in no more than 12 months from the completion of the baccalaureate degree if the non-thesis option B is selected and in no more than 18 months if the thesis option is selected.

Application procedure for Accelerated BS/MS degree program

First complete the pre-application form and submit to the MAE Director of Graduate Programs.

Once pre-approved, submit the following to the MAE Director of Graduate Programs:

- An application to Graduate School for the MAE program
Go to <http://www2.acs.ncsu.edu/grad/admissn/app/gradadm.htm> and click **US Citizens** button to get pdf file containing instruction page, application form, NC residence form and 3 reference forms. Print and complete these forms. (Question 6. Date you wish to enroll – enter the semester after expected receipt of BS degree)
- NC residency form
- 2 copies of NCSU transcripts (green sheet from UG office is acceptable)
- 3 References (you fill out top part – your references then complete these and forward them to the Director of Graduate Programs)
- Statement of Career Goals

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

Mechanical Engineering BS-MS Program	
Original Course in Undergraduate Program	Substitution Course in Graduate Program¹
MAE 435 Principles of Automatic Control	MAE 521 Linear Control and Design of MIMO Systems
MAE 415 Analysis for Mech. Engr. Design	MAE 513 Principles of Structural Vibration
MAE 4XX Departmental Elective (You may substitute for up to three departmental elective courses)	MAE 5XX or an approved non-MAE 4xx or 5xx level course ²

Aerospace Engineering BS-MS Program	
Original Course in Undergraduate Program	Substitution Course in Graduate Program¹
MAE 461 Principles of Automatic Control	MAE 521 Linear Control and Design of MIMO Systems
MAE 455 Boundary Layer Theory	MAE 550 Foundations of Fluid Mechanics
MAE 475 Propulsion	MAE 504 Fluid Dynamics of Combustion I
MAE 4XX Departmental Elective	MAE 5XX or an approved non-MAE 4xx or 5xx level course ²

Fall Graduate Course Offerings³	Spring Graduate Course Offerings³
MAE 503, 505, 511, 513, 521, 533, 538, 539, 541, 550, 560, approved non-MAE 4xx or 5xx level course	MAE 501, 518, 534, 535, 537, 540, 543, 545, approved non-MAE 4xx or 5xx level course s

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

² Approval from the MAE DGP required. Only one non-MAE 4xx course permitted for Grad credit

³See the complete university listing of graduate courses for more details.

Financial Support:

Teaching or Research Assistantships may be available to MS thesis option students once all requirements for the BS degree have been met.

Questions:

Contact Director of Graduate Programs
mae_gradoffice@ncsu.edu

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: _____

Degree/Program: _____ Signature: _____

Courses taken as 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 graduate student:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Sub-total

Total

Undergrad Coord Signature/Date: _____

DGP Signature/Date: _____

Approved for the Graduate School by: _____
Signature/Date