

Mechanical and Aerospace Engineering

The Mechanical & Aerospace Engineering department offers a Combined BS/MS Degree Program (sometimes called a 4/1 program) to provide academically talented students an opportunity to complete a bachelor's and a graduate degree in a shorter period of time.

The program allows the student to double-count graduate courses toward both degrees, thus reducing the time it would normally take to graduate by a semester or more. The combined-degree program reduces the cost of both degrees and enhances marketability for career advancement.

To be eligible for the program, a student must have a UF and upper division GPA of at least 3.33 (B+ Average). Students accepted into the combined degree program can enroll in up to 9 credits of graduate courses during the junior and senior years. These credits will satisfy the undergraduate degree requirements and, if you are admitted to graduate school at UF, the 9 credits in which you earn a B or better will satisfy graduate degree requirements.

How to Apply

Application to the program occurs in the junior or senior year using the following 2 step procedure:

- Step 1:
 - o Complete the Combined Bachelors and Masters Degree Request. This form is available online at <http://www.admissions.ufl.edu/pdf/combdegreerequest.pdf>. A copy is attached to this document as well.
 - o Bring the Combined Bachelors and Masters Degree Request to the undergraduate coordinator (Dr. Carroll.) Dr. Carroll will make a recommendation to the Graduate Committee which makes admission decisions for the program.
 - o If your application is accepted, the Graduate Coordinator (Dr. Mikolaitis) will meet with you to complete the Combined Bachelors and Masters Degree Request. He will help you select appropriate graduate courses and assist you in identifying a graduate advisor.
 - o **You start taking graduate courses at this point.**
- Step 2
 - o Take the GRE exam at the start of the senior year. For information the about the GRE see <http://www.ets.org>
 - o Apply to graduate school and indicate "combined bachelor's/master's program" in your application. This may be done online at <http://www.admissions.ufl.edu/start.html>

Financial Aid

Undergraduate degree costs should be satisfied with existing financial aid such as Bright Futures and Prepaid Tuition. Bright Futures can cover the 'undergraduate' costs of up to 12 hours of graduate courses that apply to the undergraduate degree. You are responsible for the difference in tuition between the undergraduate and graduate course rates. Graduate courses that apply toward the undergraduate degree are funded at the undergraduate *rate*, and you are responsible for the difference.

The College of Engineering has a limited number of scholarships available for students in the Combined BS/MS Degree Program.

Combined Bachelors and Masters Degree Timeline

		Undergraduate Credits (128 credits)	Freshman 30 credits	
			Sophomore 30 Credits	
Apply to MAE department for participation in Combined BS/MS Degree Program	Graduate Credits (9 taken as undergrad + 21 for MS or 81 for PhD)		Junior 30 Credits	
<ul style="list-style-type: none"> • Take GRE • Make Formal Application to Graduate School • Student is admitted to graduate school upon successful completion of BS degree requirements 			Senior 38 Credits	BS Degree Awarded
Graduate School "transfers" 9 credits of graduate courses (letter grade A, A-, B+, or B) applied toward BS degree to count toward graduate credit			Graduate MS 30 credits PhD 90 credits	Graduate Degree Awarded

Frequently Asked Questions

- **When should I apply to the program?**
 - o To be accepted, you must have at least a 3.33 Upper Division GPA and overall UF GPA. You may apply any time after you have an upper division GPA which is normally during your Junior year.
- **Are GRE scores required for acceptance into the combined BS-MS program?**
 - o You may enter the combined degree program based on your UF and upper division GPA and must complete the GRE before completion of your BS degree. The GRE is required for graduate school admissions.
- **Does acceptance into the combined BS-MS program guarantee my acceptance into graduate school?**
 - o Graduate school admission is separate from acceptance into the combined degree program and being admitted into the combined degree program does not guarantee graduate school admissions.
- **What is the advantage of entering the combined BS-MS program?**
 - o Being admitted to the combined degree program ensures you are able to double count up to 9 hours of acceptable credit between BS and MS degrees from the MAE department. Students who are not admitted to the combined degree program are not allowed to double count any graduate coursework taken during their undergraduate program.
- **What happens if I decide not to enter the MS program in the MAE department?**
 - o The graduate credit still applies to the BS degree from UF.
- **Can I take more than 9 hrs of graduate credit while I'm an undergraduate?**
 - o The MAE department will only allow you to double count up to 9 hrs of graduate credit for which you earn a B or better. You may take additional graduate courses while in your BS degree program, but these additional courses will only count toward the BS degree. (Note: The MAE department only allows a maximum of 9 credits to double count which is lower than the maximum of 12 credits allowed by the graduate school).

- **What graduate courses should I take?**

Our Graduate Program for both the Mechanical and Aerospace Masters degrees has three distinct tracks:

Dynamics, Systems and Controls (DSC);
Solid Mechanics, Design and Manufacturing (SMDM);
and Thermal Science and Fluid Mechanics (TSFD).

- Those students wishing to follow a DSC track should consider taking some of the following courses while in the 4/1 program:
 - EML 5215: Analytical Dynamics 1 (Fall)
 - EML 5311: Control System Theory (Spring)
 - EML 6281: Geometry of Mechanisms and Robots 1 (Fall)
- Those more interested in the SMDM track should consider:
 - EGM 5111L: Experimental Stress Analysis (Variable)
 - EGM 5533: Applied Elasticity and Advanced Mechanics of Solids (Fall)
 - EML 5526: Finite Element Analysis and Application (Spring, can sub for EML4507)
- Finally those wishing to pursue a TSFD track should consider:
 - EGM 5121C: Data Measurement and Analysis (Variable)
 - EML 5104: Classical Thermodynamics (Spring)
 - EML 5714: Introduction to Compressible Flow (Fall)

Of course other MAE classes may be taken if desired. Courses at the 5000 level are at a very appropriate level for advanced undergraduate students that are suitable candidates for graduate work. Please note that students must earn a grade of B or better to satisfy graduate school requirements.

A 3.0 UF GPA (most programs require a higher GPA) is necessary to enroll in 12 hours (21 for certain programs) of graduate coursework during the junior and/or senior year. To apply the graduate credit to a master's degree, you must meet admission requirements of the Graduate School and all graduate coursework must be completed with grades of B or better. Contact the graduate coordinator for details.

Student Information

<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
UFID	Last Name	First Name	Middle Name
<input style="width: 95%;" type="text"/>		<input style="width: 95%;" type="text"/>	
Email Address		Telephone	
<input style="width: 95%;" type="text"/>			
Local Mailing Address			

Undergraduate Degree

<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Major Code (ex. FIN)	Major
<input style="width: 95%;" type="text"/>	
College	
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Degree	Expected bachelor graduation date
<input style="width: 95%;" type="text"/>	
Signature of Undergraduate Department	Date

Graduate Degree

<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Graduate Major Code	Department
<input style="width: 95%;" type="text"/>	
College	
<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Degree	Expected Master graduation date
<input style="width: 95%;" type="text"/>	
Signature of Graduate Department	Date

List the courses you wish to apply to both the undergraduate and graduate degree.
A maximum of 12 credits (21 credits for certain programs) can apply dually to both degrees.

Course Prefix & Number	Course Title	Credits	Undergraduate Requirement Substituting	Term Planned or Taken	Grade
TOTAL CREDITS					

<input style="width: 95%;" type="text"/>		<input style="width: 95%;" type="text"/>	
Signature of Applicant	Date	Signature of Undergraduate Advising Dean	Date

Applicant: Submit the completed form with all signatures to the college undergraduate advising office.
College: Once approved, send a PDF of the approved form to Toby Shorey, tshorey@ufl.edu
Degrees/combined degrees