



ENME Fall 2023

Early Registration Process, Mechanical Engineering

To make an appointment with an advisor in Mechanical Engineering, visit:

<https://terpengage.force.com/community/s/>

Plan ahead and grab your advising appointment early. To check for your assigned University registration date, login to Testudo.umd.edu. You will see your registration date and your registration blocks.

Check out the syllabi and faculty videos under courses on meugrad.umd.edu. Applications for ENME408 and ENME488 (independent research) are also on the site.

1. ME students should take ENME392 for Statistics. Taking STAT400 as a substitution requires written permission from an ME undergraduate advisor PRIOR to registering for the course. It may be appropriate to substitute STAT400 for ENME392 if you are a double major (e.g. math, economics, or business) or pursuing a minor in some fields.
2. Check your progress towards your degree in UAchieve. There is a link marked "degree audit" on Testudo. If you have approved course substitutions that are not visible in UA, please inform your ENME advisor during your advising meeting.

Multiple versions of the ME curriculum are active.

- Students who began their studies at UMD in Fall 2012 or later, are usually under the **Fall 2012** program which replaces ENME271 with MATH206 (matlab) + ENME 272 (CAD). This is the **green** paper plan for those on gen ed or the yellow paper plan for those under CORE.
- Students who began their studies in ENME in Fall 2015, have a change from 6 electives to 5 and are required to take ENME400. This is the **blue** paper plan.
- Beginning fall 2017, ENME students are required to take a programming class (enme202) and are on the new **goldenrod plan**.

Ask an advisor in the UG ENME Office if you are unsure which curriculum applies to you.

3. Registration for winter/summer is first come, first serve. **ENME classes are not blocked for summer or winter term (except for ENME400) but some ENES classes are. All students need the pre-reqs for classes they intend to take.** If you need permission for an ENES class, request it during your ENME advising appointment or by email to your assigned ENME advisor. If you plan to take a winter class at another institution, you will need **permission to enroll** in advance from the A. James Clark School of Engineering (eng.umd.edu/advising/forms).

Fall 2023 (Tentative)

Syllabi/videos are on-line at meugrad.umd.edu

- ENME 408: **Automotive Design** Formula SAE Team. Application required for new team members – go to meugrad.umd.edu.
- ENME 416: **Additive Manufacturing**. Prerequisites ENME331. And ENME272; or ENME414.
- ENME 417: **Numerical Methods in Engineering**. Recommended: Senior standing.
- ENME 422: **Indoor Environment and Mechanical Systems**. Prerequisite ENES 232, and ENME332
- ENME 423: **Modern Climate Control and Building Energy Design/Analysis**. Prerequisite ENES 232, Co-Requisite ENME332



- ENME 425: **Energy Conversion Systems for Sustainability Prerequisite ENES 232. Credit granted for only ENME489X or ENME425**
- ENME 426: **Production Management. Credit only granted for: BMGT385 or ENME426.**
- ENME 430: **Fundamentals of Nuclear Reactor Engineering. Prerequisite: MATH246**
- ENME 432: **Reactor and Radiation Measurements Laboratory. Prerequisite: ENME430 and MATH246**
- ENME 441: **Mechatronics and the Internet of Things. Prerequisite: ENME351. Credit only granted for: ENME489B or ENME441.**
- ENME 442: **Information Security. Prerequisite: Senior Standing**
- ENME 444: **Assistive Robotics. Prerequisite: ENME351, Corequisite: ENME462**
- ENME 454: **Vehicle Dynamics. Corequisite: ENME361**
- ENME 470: **Finite Element Analysis. Prerequisite: Senior Standing**
- ENME 473: **Mechanical Design of Electronic Systems.**
- ENME 489C: **Sustainable Energy Conversion and the Environment.**
- ENME 489F: **Dynamics of Atmospheric Flight. Prerequisite: ENME 331**
- ENME 489G: **Manufacturing Processes and Design. Prerequisite: ENME 382**
- ENME 489O: **Design for Manufacturing and Assembly. Prerequisite: ENME382**
- ENME 489U: **Fluid Structure Interactions. Prerequisite: ENME 331 and ENME 361**
- ENME 489V: **Mechanical Contracting.**

Other options for in-major electives:

- ENME 488 – **independent research** with a faculty member (10-12 hours per week); application on-line at meugrad.umd.edu
- Graduate courses – if you have a GPA > 3.2 and an appropriate background for the class, you may want to consider taking a graduate level course. Permission is required. Go to the Clark School forms page for permission forms and process: <http://www.eng.umd.edu/advising/forms>

Out of major technical electives

Two technical electives can be out-of-major for the ME degree if they are 300/400 level courses in: CHEM, PHYS, BMGT, MATH, CMSC, ENES or other engineering. Some examples: These are just a few choices– you can choose any course that meets the rules above except for classes that duplicate ENME required courses, e.g. You can't take Fluid Mechanics in Civil E as an elective. Check with an ME advisor if you are unsure if a course meets the requirements. All of your electives can be ENME 4xx courses if you prefer.

- ENCE 325: **Intro to Construction Proj. Mgmt** after May 1, email Al Santos for permission, asantos@umd.edu
- ENES 461: **Advanced Entrepreneurial Opportunity Analysis in Technology Ventures. Credit granted for either ENES210 or ENES461, NOT both.**
- MATH 462: **Partial Differential Eq. for Scientists and Engineers** (Pre-req: MATH 241, MATH 246)
- BMGT 360: **Strategic Management of Human Capital** (Students with 53 credits)
- BMGT 461N: **Entrepreneurship** (Non-BMGT majors with 72 credits)
- PHYS 420: **Principles of Modern Physics** (Pre-req: PHYS270/271 and MATH246)

To request permission to take courses in ENAE, ECE, ENES, ENFP, BioE go to <https://eng.umd.edu/advising/course-permission> and click on non-engr seat request.