UMass | Dartmouth
COLLEGE OF ENGINEERING

Mechanical Engineering Department

From: Mechanical Engineering Department Chair

To: Mechanical Engineering Students, Faculty and Staff

Subj: Department Policy Number 01 – Undergraduate Program Handbook *(Updated 6/1/17, 7/13/17, 8/1/17, 6/13/19, 6/29/2022, 5/20/25)*

Enclosures

1. Acceptance of Mechanical Engineering Department Policies
2. Petition for Waiver of Academic Requirements and Standards
3. Petition to graduate
4. Summary of Academic Requirements – Effective 09/01/2018
5. Record of Alleged Academic Dishonesty

Background

The purpose of this policy is to define the policies of the Department of Mechanical Engineering and the requirements for graduation. Students should familiarize themselves with the contents contained. All students are required to read this policy and sign enclosure (1).

Mission Statement: The Mechanical Engineering Department at UMass Dartmouth offers two degrees: a Bachelor of Science in Mechanical Engineering and a Master of Science in Mechanical Engineering. The department also participates in the Ph.D. degree in Engineering and Applied Science (EAS). The program provides service to meet the needs of students, industry, government, and society. The program offers excellence, access, and value through a strong commitment to teaching, scholarship, outreach, and professionalism.

Program Educational Objectives

I. Career and Advancement: Our graduates will be successfully employed and advance in professional careers or graduate education programs.

II. Life-long learning: Our graduates will continue their professional and individual development through participation in activities such as: graduate education, self-study, membership in professional organizations, professional registration and certifications.

Program Outcomes – UMass Dartmouth Mechanical Engineering graduates will have:

1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3a) an ability to communicate effectively with a range of audiences- Oral presentations

3b) an ability to communicate effectively with a range of audiences- Written reports

4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5a) an ability to function effectively on a team whose members together provide leadership

5b) an ability to function effectively on a team whose members create a collaborative and inclusive environment

5c) an ability to function effectively on a team whose members together establish goals, plan tasks, and meet objectives

6a) an ability to develop and conduct appropriate experimentation

6b) an ability to analyze and interpret data

6c) an ability to use engineering judgment to draw conclusions

7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Recommendations for Student Success:

Mechanical engineering is a rewarding but challenging profession. Success requires self-discipline, hard work and good management skills throughout the undergraduate career. In addition to your instructor and advisor, there are a number of resources available at the University. To help you, we offer you several practical suggestions based on past students' success stories.

- Attend every class and arrive on time.
- Keep up with the course material.
- Study every day and frequently review. As a thumb rule, you should study two to three hours outside of class for every hour you spend in class.
- Engage in class actively with your teacher's value-added questions.
- Visit your professor during office hours for any technical assistance you may need in the relevant course.
- Complete and thoroughly understand every homework assignment.
- Present each homework assignment neatly, which will facilitate your review process for exams.
- Visit the STEM Learning Lab (SENG-217) and Multiliteracy & Communication Center (LARTS-221) for one-on-one tutoring in most subjects, tutoring in small groups, exam review, and other academic support.

Student Responsibilities

Class Attendance: While not all professors will take attendance, students are expected to attend every class session unless excused by the professor. Planned absences and travel arrangements that require a student to miss a class should only be made after consulting with the professor. Exams may only be made up with the concurrence of the professor with a valid documented excuse. Students who miss a class are responsible for all material and announcements made during the class that they missed. In accordance with University policy, student that have religious reasons to miss a class day must notify the professor, in writing, during the first week of class.

Student Effort: Mechanical Engineering is a demanding major and students should understand that to be successful he/she will require a substantial investment in time and effort. In general, students should plan

on studying a minimum of two to three hours for every hour of class time. To be effective, this minimum effort must be maintained consistently throughout the semester.

Email: Email is an official means of communication at the University. Students are responsible for any announcements or assignments sent via email and required to check their UMassD email account on a daily basis.

Academic Planning: Students are expected to plan their academic progress and maintain a record of their academic progress to include all approved petitions and exceptions.

Classroom Atmosphere: An appropriate academic atmosphere in the classroom is essential to promote effective education. While learning should be enjoyable, it is important that the appropriate decorum be maintained. Food and drink are specifically prohibited in all laboratories. In the classrooms, the food and drink may be allowed with the discretion of the instructor, provided that they are not a distraction.

Advising: The advising process is essential to the success of the student, both in ensuring that the student successfully meets the academic requirements necessary for timely graduation, and providing the student with career advice to help them after graduation. Students must meet with their advisor prior to registration each term where they are required to provide a filled out advising matrix and a copy of their current transcript. They should also meet with him/her when they are having academic difficulty and seek advice for available resources in and outside the department and college.

Students that fail to meet with their advisor during the appropriate registration period risk being unable to select required courses and may be forced to register during the drop/add period.

Academic Requirements

Degree requirements: Students are required to meet the degree requirements that were in effect during the year in which they started. Students who do not maintain continuous registration or who left without an authorized leave of absence will be subject to the catalog in effect when they are re-admitted.

Course Repeats: The University of Massachusetts Dartmouth catalog specifies that course repeats may only be taken with permission of the instructor of the course and the chair of the department. In the Department of Mechanical Engineering, in order to obtain this permission, a student must request permission using Enclosure (2). *It is the student's responsibility to have their advisor sign off on enclosure 2.* Except under extenuating circumstances, permission to repeat a course will not be given in the case of elective courses, and students will only be given permission to repeat a course one time. Failing a laboratory component will not allow the student to repeat the course elsewhere.

The Department of Mechanical Engineering does not allow the third repeat of any required course. This includes taking the course at another institution or taking an equivalent course in another department with a different designation. Courses taken at other institutions do not remove a UMassD grade from the grade point average and count toward the maximum of two attempts for a course.

Residence: In order to obtain an undergraduate degree from the University of Massachusetts Dartmouth, students are required to complete a minimum of 45 credits at UMass Dartmouth including 30 credits of specialized courses in the 300 level or higher. In addition, *the Mechanical Engineering department requires that MNE 252 and all 300 and higher level departmental required courses are first taken in the department.* If the student wants to repeat any of these courses outside the department, they need to

obtain the Chair's permission.

Grade Point Average: Students are expected to maintain an overall and **in-major GPA of at least 2.000**. Students who fail to maintain the required GPA will not be allowed to graduate. The in-major GPA is calculated by averaging (Note – transfer credits are excluded):

- All MNE courses
- MTH, EGR, ECE courses above the 1xx level
- All courses used as technical electives

Incomplete Grades: In accordance with University Policy, "Incomplete" grades may only be given in exceptional circumstances at the instructor's discretion and at the request of the student. The request must be made no more than 48 hours after the final examination time. An incomplete maybe given by the instructor when you are otherwise doing acceptable work but are unable to complete the course because of illness or other exceptional circumstances The incomplete request also needs approval of the Dean's office. If approved, students have one year from the date the mark of "I" is recorded to complete the course and should not reregister or pay fees to complete the course. The grade for courses not completed within one year will be automatically changed to a failing grade "F" on the transcript.

Graduate electives: With permission of the instructor, students with a 2.8 GPA or higher may take graduate courses to meet the requirements of the undergraduate curriculum. The department will allow any student that has taken a graduate course as an undergraduate to apply that course towards a Master's degree in Mechanical Engineering, provided that the student earns a minimum of B in the course and that the student identifies the course and their intent to apply it towards their Master degree prior to receiving their undergraduate degree. Under these circumstances the course may count towards both the graduate and undergraduate degrees.

Course Substitutions:
Substitutions in the curriculum must ultimately be approved by the Chair and the Associate Dean for Academic Affairs. MNE 252 and all 300 and higher level Mechanical Engineering courses need to be taken in the department first. Any repeats of these courses elsewhere requires the Chair's approval and passing the laboratory component (if they exist) in the first attempt.

Independent Study: Independent study courses (MNE 495) are used to allow students to pursue study interests not normally offered in the curriculum and may replace the requirements of a technical elective. Independent study must be approved by the instructor, the Chairperson and the College Associate Dean. Students may use a maximum of three credit hours of independent study for the purposes of fulfilling degree requirements.

Directed Study: Directed Study (MNE 296, 396 and 496) is used to fill topics normally covered in regular course, but not currently being offered. In general, directed study will only be offered to students who are unable to complete a normally offered course as the result of scheduling conflicts control and changes in academic program requirements beyond their control. Directed Study courses must be approved by the Instructor, the Chairperson and the College Associate Dean.

University Studies Requirement: A majority of University Studies requirement are met using courses required in the curriculum. The students are required to select courses in the areas of Literature (3A), Visual and Performing Arts (3B), Human Question and Context (4A) and Nature of the US Society (4B). Care should be given to ensure that the requirements are properly met. Some courses can be used in more than one category; but no course can be used more than once.

Certification for graduation: Prior to advising for the final term, students are required to submit a petition to graduate using Enclosure (3).

BS/MS Program

The Department of Mechanical Engineering offers a 5-year BS/MS program for highly-qualified students. Further details may be found at:

https://www.umassd.edu/engineering/bs-ms-programs/mechanical-engineering/

Engineering Societies

The department and the university offer a wide variety of activities through the student organizations. In order for a student to be eligible for leadership positions in these co-curricular organizations, non-Continuing Education students shall be enrolled full time (at least 12 hours) and Continuing Education students shall be enrolled at equivalent full-time levels for their specific programs. Participation in intercollegiate athletics is also governed by enrollment status conditions.

Departmental Honors Program

The department has developed an Honors program. Students accepted into the honors program will be assigned to a specific advisor who will guide them through the requirements of the program.

Laboratory Safety

For the safety of the student and equipment, laboratory safety is taken very seriously.

1. Required safety equipment and operating procedures will be explained at the beginning of each lab. Students are required comply with all safety and operating procedures.
2. Students should familiarize themselves with the locations of emergency equipment and emergency exits.
3. Clothing appropriate with working in an industrial environment should be worn.
    a. Required personal protective equipment (PPE) will be outlined before the start of the lab.
    b. When safety glasses are required, students must provide their own OSHA approved safety glasses.
    c. Closed toe shoes are required for all laboratories.
    d. No loose-fitting clothing or jewelry is to be worn around rotating machinery.
    e. Long hair will be tied back around rotating machinery.
4. Material Safety Data Sheets (MSDS) will be reviewed (when required) before the start of each lab. Students may request copies of MSDS.
5. Food and drinks are not allowed in labs (including the computer lab).
6. Horseplay is forbidden and will result in disciplinary action.
7. If defective equipment is discovered when performing lab experiments, report the situation to the Professor or Teaching Assistant.
8. Anyone who willingly damages lab equipment will be asked to leave the lab and not allowed to make up the lab. Additionally, the student may be required to reimburse the university for the damage.

Academic Misconduct

Disciplinary record: Incidents of academic dishonesty will be documented on Enclosure (5) and forwarded to the Department Chair and the College Associate Dean. Depending on the seriousness of the violation, the student may be penalized in the course up to failure of the course. In addition, the student may be referred to the Student Judiciary for further disciplinary actions. The Associate Dean maintains a file of alleged academic misconduct and may take further disciplinary action based on a demonstrated pattern.

Use of Plagiarism Detection Services: Students should be aware that any assignment, at the sole discretion of the instructor, may be checked for plagiarism using an online detection service. Instructors have the option to submit either individual suspicious papers or all papers from a class.

Areas of Concentration

Manufacturing

Acceptance of this Policy:

All mechanical engineering students must read the requirements of this policy and indicate their familiarity with it by signing Enclosure (1). Permission to register for courses will be withheld unless Enclosure (1) is on file.

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Enclosure (1) – Acceptance of Mechanical Engineering Department Policies

All undergraduate Mechanical Engineering students are required to read **Mechanical Engineering Department Policy Number 01 - Undergraduate Program Handbook**; this signed document acknowledges your acceptance of its conditions.

Student Name (Legibly Print):_____Student ID: _____

Carefully read and certify the following:

- *I certify that I have been provided with a copy of Mechanical Engineering Department Policy Number 01 – Undergraduate Program Handbook. I also certify that I have read it thoroughly and agree to be bound by its conditions.*
- *I understand the department's academic standards and that a failure to meet these academic standards (including in major GPA and repeated course failures) may result in my removal from the program.*
- *I understand that unless I have a legitimate excuse I am required to attend every class and that if I must miss a class, I am responsible for all material that I missed. I understand that within the first week of class, it is my responsibility to provide each instructor with a written list of any religious holidays that will require my absence.*
- *I understand university policy on academic dishonesty and that the consequences of violation potentially include failure and dismissal from the university. I further understand that the instructor has the right to submit my work to an offsite data base to determine originality. I understand that a record of alleged academic dishonesty will be maintained by the Associate Dean of the College of Engineering and that a pattern of misbehavior will be referred to the University for disciplinary action.*
- *I understand that I am required to check my UMD email account daily (except weekends and holidays) and that I am responsible for its content.*
- *I understand that laboratory and shop equipment may be dangerous. I understand that horseplay and food/drinks are strictly prohibited in laboratories. I understand that I must dress appropriately for every laboratory, to include wearing any necessary and appropriate protective equipment. I understand that I shall not operate any equipment with which I have not familiarized myself.*

Signed:

Signature/Date_____/_____

Enclosure (2) – Petition for Waiver of Academic Requirements and Standards

From (Student):_____Student ID_____
To: Faculty, Department of Mechanical Engineering, University of Massachusetts Dartmouth
Catalog Year_____ Current GPA_____

Purpose of Petition (*Check One*):

- ☐ Course Substitution (Specify in the remarks)
- ☐ Prerequisites Waiver
- ☐ Special Topics to Satisfy Required Course
- ☐ Substitute Graduate Course as Undergraduate Technical Elective
- ☐ Out of Department Technical Elective
- ☐ Repeat a course (*Note: approval will not normally be given to repeat a course more than once*)
- ☐ Enroll in senior design prior to senior year
- ☐ Other (*Specify in the remarks*)

PROVIDE DETAILED DESCRIPTION for this request:

Submitted (Student):
Sign/ Date_____/ _____

Advisor:
Recommended ☐ Not Recommended ☐
Sign/ Date_____/_____

Chair:
Approved ☐ Disapproved ☐ Forwarded ☐ Recommended ☐ Not Recommended ☐
Sign/ Date_____/ _____

Dean (If Applicable):
Approved ☐ Disapproved ☐
Sign/ Date_____/ _____

Enclosure (3) – Petition to graduate

From (Student):_____Student ID_____

Anticipated Graduation Term_____:

Instructions:

1. *This form shall be completed one year prior to anticipated graduation.*
2. *Attach a copy of your unofficial transcript, including all transfer credits.*
3. *Attach and complete the appropriate Academic requirements summary from Enclosure (4).*
4. *Calculate your in-major GPA (must be $\geq$ 2.0). (Use only courses completed at UMassD. Include all MNE courses, all technical electives, all MTH, EGR and ECE above 1xx level). Accessible in COIN*
5. *List any course substitutions below and attach supporting documentation.*
6. *Develop and list a plan to complete remaining requirements*

In-major GPA_____(from COIN)

Approved course substitutions*:

Mechanical Engineering Requirement	Substitution Course	Remarks

* Attach an additional sheet if necessary. Also attach supporting approval documentation.

Graduation Plan – List courses to be taken by term

Term or intersession (e.g. SP 14)					
Course 1					
Course 2					
Course 3					
Course 4					
Course 5					
Course 6					

Remarks:

Submitted:

Student:

Sign/ Date_____/_____

Advisor:

Recommended ☐ Not Recommended ☐

Sign/ Date_____/_____

Chair:

Approved ☐ Disapproved ☐

Sign/ Date_____/_____

Final Certification (Chair)

Approved ☐ Disapproved ☐

Sign/ Date_____/_____

Enclosure (4) – Summary of Academic Requirements – Effective 09/01/2018

Requirement	Term*		Grade	Alternate Courses
	Sem	Year		
US (3A)				
US (3B)				
US (4A)				
US (4B)				
Approved Science Elective				CHM 152, BNG 255 or other approved course
CHM 151 or 153				
CHM 161				CHM 162
ECE 211				
ECE 251				
EGR 111				
EGR 241				
EGR 242				
EGR 301				
EGR 303				
ENL 101				
ENL 102				
ENL 266				
MNE 101				
MNE 220				
MNE 231				
MNE 252				CEN 202 (3 hours) and MNE 296 (1 hour) if approved by department chair
MNE 311				
MNE 332				
MNE 345				
MNE 381				
MNE 391				
MNE 421				
MNE 497				
MNE 498				
Tech Elective 1				
Tech Elective 2				
Tech Elective 3				
Tech Elective 4				
MTH 151/153				
MTH 152/154				
MTH 212				
MTH 211/213				
PHY 111/113				
PHY 112/114				

* Indicate the term completed. For Courses that have not been completed, indicate the term of anticipated completion.

Enclosure (5) – Record of Alleged Academic Dishonesty

Student name_____ID number _____
Date of Alleged Infraction_____
Brief Description of Alleged Infraction(Attach any relevant evidence such as examinations or papers):

Penalty Administered:

Student Comments (Including whether the student intends to appeal the penalty administered:

Instructor: Student:

Sign/ Date_____/_____Sign/ Date_____/ _____

Chair: Associate Dean for Academic Affairs:

Sign/ Date_____/_____Sign/ Date_____/ _____