

# RECOMMENDED MECHANICAL ENGINEERING CURRICULUM FLOW CHART

Effective for Students Entering ME Spring 2013 to Fall 2016

Semesters							
I	II	III	IV	V	VI	VII	VIII
Math 221 Calculus 5	Math 222 Calculus 4	Math 234 Calculus 4	ME 361 Thermo 3 I	ME 363 Fluids 3	ME 364 Heat Transfer 3	Elective Technical 3 E	ME 370 Energy Laboratory 3
	Stat 224 Statistics 3	Math 320 Linear Alg Diff. Eqns 3	ME 306 Mechanics of Mats 3 I G and		ME 368 Measuremts Lab 4	Elective Technical 3 E	ME 349 Design Projects 3 H
	EMA 201 Statics 3	ME 240 Dynamics 3 I	ME 307 Materials Lab 1 G	ECE 376 Circuits 3	ECE 377 Power Conversion 3	ME 351 Design Projects 3	ME 352 Design Projects 3
Intr-Egr 160 Intro to Engin. 3 B		ME 231 Graphics 2		ME 331 Geometric Modeling 3	ME 313 Manufact. Processes 3	ME 314 Manufact. Fund. 3	Elective Technical 3 E
or							
Intr-Egr 101 or Intr-Egr 102 2 B	EPD 155 Basic Comm. 2 F		MS&E 350 Mat'l Sci 3	EPD 397 Technical Comm. 3		Elective Technical 3 E	Elective Math/ Science 3 J
Chem 103 General Chemistry 4 A	Chem 104 General Chemistry 5 A	CS 301 or 302 Intro to Prog. 3	Phys 202 General Physics 5	ME 340 Dynamic Systems 3		ME 342 Machine Elements 3	
Elective Liberal 3 D			Elective Liberal 3 D	Elective Liberal 3 D	Elective Liberal 3 D		Elective Liberal 3 D

■ Energy Systems  
 ■ Engineering Mechanics  
 ■ Design  
 ■ Manufacturing  
 ■ Graphics  
 ■ Technical Writing

Minimum Degree Credits Required = 128 (see note C)

The letters appearing at the lower left refer to notes on the following page.  
The prerequisites for each class are listed in the course catalog.

# FLOW CHART SUBSCRIPTS

(Revised January 2013)

- A. CHEMISTRY:** There are two options for the chemistry elective:  
Option 1—Chem 103, 4 credits and Chem 104, 5 credits  
Option 2—Chem 109, 5 credits. Note: If Chem 109 is taken, students may need free elective credits to meet the minimum number of credits (128) required for graduation. (See note C)
- B. INTRODUCTION TO ENGINEERING:** InterEgr 101 or InterEgr 102 (2 credits) or InterEgr 160 (3 credits) all satisfy the college requirement for introduction to engineering.
- C. 128 CREDITS TOTAL REQUIRED:** Students fulfilling their course requirements with fewer than 128 credits must take additional free-elective credits to comply with the 128 credit minimum graduation requirement.
- D. LIBERAL STUDIES REQUIREMENTS:** Students must take 15 credits that carry H, S, L, or Z timetable breadth designators. These credits must fulfill the following subrequirements:
1. A minimum of 2 courses from the same department or program. At least 1 of these 2 courses must be designated as above the elementary level (I, A, or D) in the timetable.
  2. A minimum of 6 credits designated as humanities (H, L, or Z) in the timetable, and an additional minimum of 3 credits designated as social studies (S or Z) in the timetable. Foreign Language courses count as H credits. Retroactive credits for language courses may not be used to meet the Liberal Studies requirement.
  3. At least 3 credits in courses designated as ethnic studies (lower case "e") in the timetable. These courses may help satisfy requirements D1 and D2 as well, but they only count once toward the total required.  
Note: Some courses may have "e" designation but not have H, S, L, or Z designation; these courses do not count towards the liberal studies requirement.
- E. TECHNICAL ELECTIVES**  
The Mechanical Engineering curriculum requires a total of 12 credits of technical electives. A minimum of 9 of the 12 credits must be from formal courses. (A formal course is defined as a class which meets regularly in a lecture format to study a selected topic. The educational mission is assisted with homework and exams. Formal courses cannot be seminar, survey, or other similar courses.)
1. Formal ME. A minimum of 6 (of the required 9) formal course credits must be for Mechanical Engineering courses with course numbers 400 or higher (plus ME 273 and ME 351). (See note H).
  2. Non-ME Formal. Up to 6 technical elective credits may be earned for formal classes in courses outside of the Mechanical Engineering Department. These courses may be engineering, mathematics, physics, chemistry, statistics, biology, or computer science courses numbered 400 and above. InterEgr and EPD course selections are limited to those listed below. The courses listed below are also accepted as technical electives. Other courses may be accepted if approved by the Curriculum Committee in advance of taking the course:

Comp Sci 354, 367	BSE 351, 364	EPD 374, 375
Chemistry 341, 343, 345	CEE 311, 315, 316, 320, 325, 330, 355,	ISyE 323, 349
Math 321, 322	356, 370, 375	MS & E 330, 332, 352, 370
Physics 311, 321, 322, 325	CBE 320, 326	NEEP 305
Statistics 311, 312, 333, 349, 351	ECE 320, 330, 340, 342, 352, 353,	Bmolchem 314, Physiol 335
InterEgr 301	354, 355	
  3. Non-formal. Up to 3 technical elective credits may be obtained for non-formal Mechanical Engineering courses such as independent study courses (e.g., ME 491, 492). Up to 3 credits of Cooperative Education (ME 001) can be counted for technical elective credit. Up to 3 credits are allowed for EPD 690 Wisconsin Engineer Magazine.
- F. COMMUNICATION REQUIREMENT:** EPD155 fulfills the Comm A requirement. If your GER communications Part A is satisfied you are exempt from this requirement. This requirement can also be fulfilled with: Ag Journ 100, Com Arts 100, Engl 100, Engl 118, or IES 200. (See note C)
- G. ME 306 and ME 307.** ME 306 must be taken before or concurrently with ME 307.
- H. CAPSTONE:** There are two options for the capstone design experience: ME 349 taken alone or ME 351 and ME 352 taken sequentially. Students completing ME 352 will satisfy the requirement for ME 349 and will receive 3 technical elective credits for ME 351.
- I. ME 240, ME 306, and ME 361** each require a minimum grade of C
- J. MATH/SCIENCE ELECTIVE:** The Mechanical Engineering curriculum requires 3 credits of Math/Science electives. Any formal biological science course numbered 100 or higher will also satisfy this elective. Any formal course that is listed in Engineering or as either physical or natural science in the breadth designation and is numbered 200 or higher will satisfy this elective. EPD and InterEgr courses will not satisfy the Math/Science elective.

## SPECIAL NOTES

- Students enrolled in fewer than 12 credits (part-time status) must have Dean's permission.
- Questions concerning this curriculum should be directed to: Student Services Staff, 1410 Engineering Dr, Suite 170.
- Mechanical Engineering's website is found at: <https://www.engr.wisc.edu/department/mechanical-engineering/>