

MECHANICAL ENGINEERING CURRICULUM (Option A: last Name begins with A-K)

Semestser 1 17 credits	Semestser 2 17 credits	Semestser 3 17 credits	Semestser 4 16 credits	Semestser 5 15.5 credits	Semestser 6 17 credits	Semestser 7 16.5 credits	Semestser 8 15 credits
CHEM 110 3 cr. <i>Chem Principles</i>	Science elective 3 cr. <i>CHEM 112, BIOL 141 or PHYS 214 and CHEM 111</i> P: Vary by selection	CMPSC 200 or 201 3 cr. <i>MATLAB or C++</i> P: MATH 140 P/C: MATH 141	ME 300 3 cr. <i>ENGR Thermodynamics</i> P: CHEM 110 P/C: MATH 141	ME 370 3 cr. <i>Vibration of Mech Sys</i> P: EMCH 212, CMPSC 200/201 MATH 220, MATH 251	ME 320 3 cr. <i>Fluid Flow</i> P: EMCH 212, MATH 251 ME 300, MATH 231	ME 450 3 cr. <i>Modeling Dynamic System</i> P: ME 370 P/C: ME 348	ME 440W 3 cr. <i>Design Capstone</i> P: ME 340 P/C: IE 312, ENGL 202C
MATH 140# 4 cr. <i>Calc 1</i>	MATH 141# 4 cr. <i>Calc 2</i> P: MATH 140	MATH 251# 4 cr. <i>Diff Equations</i> P: MATH 141	MATH 231# 2 cr. <i>Calc of Several Variables</i> P: MATH 141	ME 330 3 cr. <i>Computational Tools</i> P: EMCH 212 & 213, MATH 251, PHYS 212	ME 340 3 cr. <i>ME Design Methodolgy</i> P: EDSGN 100 P/C: ME 320, ME 360	ME 410 3 cr. <i>Heat Transfer</i> P: ME 320, MATH 220 CMPSC 200/201	ETE 3 cr. <i>ENGR Tech Selection</i> P/C: Vary by selection
EDSGN 100 3 cr. <i>Intro to Engr Design</i>	PHYS 211 4 cr. <i>Mechanics</i> P/C: MATH 140	PHYS 212 4 cr. <i>Elect & Magnetism</i> P: PHYS 211, MATH 140 P/C: MATH 141	MATH 220# 2 cr. <i>Matrices</i> P: MATH 140	ME 348 3 cr. <i>Circuit Analysis...</i> P: MATH 251, PHYS 212	ME 360 3 cr. <i>Mechanical Design</i> P: EMCH 213 P/C: CMPSC 200/201	ME 435 3 cr. <i>ME Systems Lab</i> P: ME 348, ME 330 P/C: ME 320, ME 370	GTE 3 cr. <i>GTE Tech Selection</i> P/C: Vary by selection
ENGL 15 3 cr. <i>Rhetoric and Compisition</i>	ECON 102 or 104 3 cr. <i>Micro or Macro economics</i> (GS - Single domain)	EMCH 211# 3 cr. <i>Statics</i> P: MATH 140	EMCH 213# 3 cr. <i>Strength of materials</i> P: EMCH 211	IE 312 3 cr. <i>Product Design...</i> P: EMCH 213 P/C: MATSE 259	ME 454 3 cr. <i>Mechtatronics</i> P: ME 348	METE 3 cr. <i>ME Tech Selection</i> P/C: Vary by selection	AHS gen ed ^ 3 cr.
Engr FYS 1 cr. <i>Students who did not take a COE FYS should verify completion of this requirement with ME adviser</i>	AHS gen ed ^ 3 cr.	CAS 100 3 cr. <i>Effective Speech</i>	EMCH 212# 3 cr. <i>Dynamics</i> P: EMCH 211, MATH 141	MATSE 259 3 cr. <i>Prop&Proc ENGR Materials</i> P: EMCH 213	ENGL 202C 3 cr. <i>Technical Writing</i> P: ENGL 15	ETE 3 cr. <i>ENGR Tech Selection</i> P/C: Vary by selection	AHS gen ed ^ 3 cr.
AHS gen ed ^ 3 cr.			AHS gen ed ^ 3 cr.	ME 390 0.5 cr. <i>Acad & Career Development</i>	ME 490 0.5 cr. <i>Professional Development</i> P: ME 390	GHW 1.5 cr.	
					GHW 1.5 cr.		

P = prerequisite C = concurrent

Courses applied toward major GPA calculation

ME Course Sequencing

	Thermal Sciences
	Imbeded Labs
	Dynamic Systems
	Design Concentration

Completion of EMCH and MATH courses before the 5th semetser is important for future course sequencing
 EMCH 210 or EMCH 210H is not a direct substitute for EMCH 211 & 213 requirements and should not be taken for ME_BS
 ^ US Cultures & IL Cultures and Integrative studies requirements are satisfied in conjunction with gen ed courses
[Baccalaureate Degree General Education Requirements | Penn State \(psu.edu\)](https://www.bulletins.psu.edu)

This flow chart is meant to be a guide for planning. For official degree requirements see www.bulletins.psu.edu.