

# Mechanical Engineering Curriculum

(Option B: last name begins with L-Z)

SEMESTER 1			SEMESTER 2		
Course		Credits	Course		Credits
FYS	First Year Seminar <sup>1</sup>	1	MATH 220	MATLAB <b>C</b>	2/3
ENGL 15	Rhetoric and Composition <b>C</b>	3	ECON 102/104 <sup>^</sup>	Micro or Macro Economics (GS)	3
EDSGN 100	Introduction to Engineering Design <b>C</b>	3	MATH 141	Calc with Analytic Geometry II <b>C</b>	4
GEN ED <sup>^</sup>	Gen ed selection	3	GEN ED <sup>^</sup>	Gen ed selection	3
MATH 140	Calculus with Analytic Geometry I <b>C</b>	4	PHYS 211 <sup>^</sup>	Mechanics <b>C</b>	4
CHEM 110	Chemical Principles <b>C</b>	3			
<b>Total Semester Credits</b>		<b>17</b>	<b>Total Semester Credits</b>		<b>16/17</b>
SEMESTER 3			SEMESTER 4		
Course		Credits	Course		Credits
CMPS 200/201	MATLAB / C++	3	EMCH 212	Dynamics <b>C</b>	3
CAS 100A/B	Effective Speech <b>C</b>	3	EMCH 213	Strength of Materials <b>C</b>	3
EMCH 211	Statics <b>C</b>	3	ME 300	Engineering Thermodynamics I <b>C</b>	3
MATH 251	Ordinary and Partial Differential Eq. <b>C</b>	4	MATH 231	Calculus of Several Variables	2
PHYS 212 <sup>^</sup>	Electricity and Magnetism <b>C</b>	4	Sci Elective	Science Elective <sup>2</sup>	3
			GEN ED <sup>^</sup>	Gen ed selection	3
<b>Total Semester Credits</b>		<b>17</b>	<b>Total Semester Credits</b>		<b>17</b>
SEMESTER 5			SEMESTER 6		
Course		Credits	Course		Credits
ENGL 202C	Technical Writing <b>C</b>	3	IE 312	Product Design & Mfg Processes	3
GEN ED <sup>^</sup>	Gen ed selection	3	MATSE 259	Properties & Processing of Engr. Mat'l.	3
ME 340	Mech. Engr. Design Methodology <b>C</b>	3	ME 330	Computational Tools <b>C</b>	3
ME 360	Mechanical Design <b>C</b>	3	ME 370	Vibrations of Mechanical Systems <b>C</b>	3
ME 320	Fluid Flow <b>C</b>	3	ME 348	Circuit Analysis, Inst. and Stat. <b>C</b>	3
ME 390	Academic & Career Dev for ME	0.5	GHW <sup>^</sup>	General Health and Wellness selection	1.5
<b>Total Semester Credits</b>		<b>15.5</b>	<b>Total Semester Credits</b>		<b>16.5</b>
SEMESTER 7			SEMESTER 8		
Course		Credits	Course		Credits
ME 440W	Capstone Project	3	ETE	Engineering Technical Elective	3
ME 450	Modeling of Dynamic Systems <b>C</b>	3	ME 410	Heat Transfer <b>C</b>	3
ME 454	Mechatronics <b>C</b>	3	METE	M E Technical Elective	3
GTE	General Technical Elective	3	ME 435	Systems Lab <b>C</b>	3
ETE	Engineering Tech Elective	3	GEN ED <sup>^</sup>	Gen ed selection	3
ME 490	Professional Dev for ME	0.5	GHW <sup>^</sup>	General Health and Wellness selection	1.5
<b>Total Semester Credits</b>		<b>15.5</b>	<b>Total Semester Credits</b>		<b>16.5</b>

This chart is meant to be a guide for planning; use in conjunction with official degree audit. Please note that some courses require a grade of C or better **C**. For additional information on official degree requirements and prerequisites see [www.bulletins.psu.edu](http://www.bulletins.psu.edu).

- Students who did not take a 1 cr. COE FYS should verify completion of this requirement with a ME adviser.
- Science Elective Choices: CHEM 112, BIOL 141, BIOL 161, or CHEM 111 and PHYS 214 (3 credits total).
- Successful completion of MATH and EMCH courses **before the 5<sup>th</sup> semester** is important for future course sequencing.
- EMCH 210 or EMCH 210H is *not* a direct substitute for EMCH 211 and EMCH 213 requirements and should not be taken for ME\_BS. Please email [advising@me.psu.edu](mailto:advising@me.psu.edu) if you have concerns.
- Information on **Technical Elective** requirements can be found at <https://www.me.psu.edu/students/undergraduate/curriculum-electives.aspx>.
- **International/Sponsored students**- It is highly recommended that students review their course enrollment, as some courses include hybrid offerings in certain sections.

^ Gen ed requirements:		
Single Domain 3 Credits Each	Interdomain ("N") 6 Total Credits	Exploratory 9 Total Credits
✓ *3 cr GS - ECON 102 or 104	<input type="checkbox"/> 3 cr	✓ *3 cr GN - PHYS 211
✓ *3 cr GN - CHEM 110	<input type="checkbox"/> 3 cr	✓ *3 cr GN - PHYS 212
<input type="checkbox"/> 3 cr - GA		<input type="checkbox"/> 3 cr any
<input type="checkbox"/> 3 cr - GH		GA/GH/GS/GN/ID
<input type="checkbox"/> 3 total cr - GHW <input type="checkbox"/> 1.5 cr <input type="checkbox"/> 1.5 cr		or 12th cr level language
* Gen Eds satisfied through ME BS required Curriculum		
Capture cultures requirements in above selections: 3 cr US & 3 cr IL		

[Interactive Flowchart: Mechanical Engineering](#)

<sup>1</sup> Students who did not take a 1cr CoE FYS should verify completion of this requirement with ME adviser