

Mechanical Engineering Curriculum

(Option A: last name begins with A-K)

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

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. For additional information on official degree requirements and prerequisites see www.bulletins.psu.edu.

- Successful completion of MATH and EMCH courses **before the 5th 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
- Information on **Technical Elective** requirements can be found at <https://www.me.psu.edu/students/undergraduate/curriculum-electives.aspx>

^General Education in ME_BS curriculum:

3 credits each Single domain	6 total credits Interdomain ("N")	9 total credits Exploratory
<input checked="" type="checkbox"/> *3 cr. GS – ECON 102 or 104	<input type="checkbox"/> 3 cr. -	<input checked="" type="checkbox"/> * GN – PHYS 211
<input checked="" type="checkbox"/> *3 cr. GN – CHEM 110	<input type="checkbox"/> 3 cr. -	<input checked="" type="checkbox"/> * GN – PHYS 212
<input type="checkbox"/> 3 cr. GA -		<input type="checkbox"/> 3 cr. - any GA/GH/GS/GN/ld or 12 th cr. level language
<input type="checkbox"/> 3 cr. GH -		
<input type="checkbox"/> 3 total cr. GHW -		
*Gen eds satisfied through ME_BS required curriculum		
Remember - capture cultures requirements in above selections: 3 cr. US and 3 cr. IL		
Other University Requirements Penn State (psu.edu)		

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

² Science elective choices: CHEM 112, BIOL 141, BIOL 161, or CHEM 111 **and** PHYS 214 (3 credits total)