Mechanical Engineering Curriculum

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

SEMESTER 1		
Course		*Credits*
FYS	First Year Seminar [1]	1
ENGL 15	Rhetoric and Composition	3
EDSGN 100	Introduction to Engineering Design	3
GEN ED^	Gen ed selection	3
MATH 140	Calculus with Analytic Geometry I	4
CHEM 110	Chemical Principles	3
	Total Semester Credits	**17**

SEMESTER 2		
Course		*Credits*
Sci elective	Science Elective [2]	3
ECON 102/104	Micro or Macro Economics (GS)	3
MATH 141	Calc with Analytic Geometry II	4
GEN ED^	Gen ed selection	3
PHYS 211	Mechanics	4
	Total Semester Credits	**17**

SEMESTER 3		
Course		*Credits*
CMPSC 200 or 201	MATLAB or C++	3
CAS 100A/B	Effective Speech	3
E MCH 211	Statics	3
MATH 251	Ordinary and Partial Differential Eq.	4
PHYS 212	Electricity and Magnetism	4
	Total Semester Credits	**17**

SEMESTER 4		
Course		*Credits*
E MCH 212	Dynamics	3
E MCH 213	Strength of Materials	3
M E 300	Engineering Thermodynamics I	3
MATH 231	Calculus of Several Variables	2
MATH 220	Matrices	2 or 3
GEN ED^	Gen ed selection	3
	Total Semester Credits	**16/17**

SEMESTER 5		
Course		*Credits*
ENGL 202C	Technical Writing	3
GEN ED^	Gen ed selection	3
M E 340	Mech. Engr. Design Methodology	3
M E 360	Mechanical Design	3
M E 320	Fluid Flow	3
GHW^	General Health and Wellness selection	1.5
	Total Semester Credits	**16.5**

SEMESTER 6		
Course		*Credits*
I E 312	Product Design & Mfg Processes	3
MATSE 259	Properties & Processing of Engr. Mat'l.	3
M E 330	Computational Tools	3
M E 370	Vibrations of Mechanical Systems	3
M E 348	Circuit Analysis, Inst. and Stat.	3
ME 390	Academic & Career Dev for ME	0.5
	Total Semester Credits	**15.5**

SEMESTER 7		
Course		*Credits*
M E 440W	Capstone Project	3
GEN ED^	Gen ed selection	3
M E 454	Mechatronics	3
GTE	General Technical Elective	3
ETE	Engineering Tech Elective	3
ME 490	Professional Dev for ME	0.5
	Total Semester Credits	**15.5**

SEMESTER 8		
Course		*Credits*
ETE	Engineering Technical Elective	3
M E 410	Heat Transfer	3
M E 450	Modeling of Dynamic Systems	3
METE	M E Technical Elective	3
ME 435	Systems Lab (recommend ME 410 before or concurrent)	3
GHW^	General Health and Wellness selection	1.5
	Total Semester Credits	**16.5**

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***
✓ *3 cr. **GS – ECON 102 or 104**	☐ 3 cr. -	✓ * **GN – PHYS 211**
✓ *3 cr. **GN – CHEM 110**	☐ 3 cr. -	✓ * **GN – PHYS 212**
☐ 3 cr. **GA -**		☐ 3 cr. – any GA/GH/GS/GN/id or 12th cr. level language
☐ 3 cr. **GH -**		
☐ 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)

6/5/2024