

# 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	Sci elective	Science Elective <sup>2</sup>	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 <sup>^</sup>	Gen ed selection	3	GEN ED <sup>^</sup>	Gen ed selection	3
MATH 140	Calculus with Analytic Geometry I	4	PHYS 211	Mechanics	4
CHEM 110	Chemical Principles	3			
<b>Total Semester Credits</b>		<b>17</b>	<b>Total Semester Credits</b>		<b>17</b>
SEMESTER 3			SEMESTER 4		
Course		Credits	Course		Credits
CMPSC 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 <sup>^</sup>	Gen ed selection	3
<b>Total Semester Credits</b>		<b>17</b>	<b>Total Semester Credits</b>		<b>16/17</b>
SEMESTER 5			SEMESTER 6		
Course		Credits	Course		Credits
ENGL 202C	Technical Writing	3	I E 312	Product Design & Mfg Processes	3
GEN ED <sup>^</sup>	Gen ed selection	3	MATSE 259	Properties & Processing of Engr. Mat'l.	3
M E 340	Mech. Engr. Design Methodology	3	M E 330	Computational Tools	3
M E 360	Mechanical Design	3	M E 370	Vibrations of Mechanical Systems	3
M E 320	Fluid Flow	3	M E 348	Circuit Analysis, Inst. and Stat.	3
GHW <sup>^</sup>	General Health and Wellness selection	1.5	ME 390	Academic & Career Dev for ME	0.5
<b>Total Semester Credits</b>		<b>16.5</b>	<b>Total Semester Credits</b>		<b>15.5</b>
SEMESTER 7			SEMESTER 8		
Course		Credits	Course		Credits
M E 440W	Capstone Project	3	ETE	Engineering Technical Elective	3
GEN ED <sup>^</sup>	Gen ed selection	3	M E 410	Heat Transfer	3
M E 454	Mechatronics	3	M E 450	Modeling of Dynamic Systems	3
GTE	General Technical Elective	3	METE	M E Technical Elective	3
ETE	Engineering Tech Elective	3	ME 435	Systems Lab ( <i>recommend ME 410 before or concurrent</i> )	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. For additional information on official degree requirements and prerequisites see [www.bulletins.psu.edu](http://www.bulletins.psu.edu).

- 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
- Information on **Technical Elective** requirements can be found at <https://www.me.psu.edu/students/undergraduate/curriculum-electives.aspx>

## <sup>^</sup>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/id or 12 <sup>th</sup> cr. level language
<input type="checkbox"/> 3 cr. GH -		
<input type="checkbox"/> 3 total cr. GHW -		
*Gen eds satisfied through ME_BS required curriculum		
<b>Remember - capture cultures requirements in above selections: 3 cr. US and 3 cr. IL</b>		
Other University Requirements   Penn State ( <a href="http://psu.edu">psu.edu</a> )		

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

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