






















# ENGINEERING, B.S.E.




## Course Requirements

 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

Code	Title	Credit Hours
<b>Core 1: Critical Thinking</b>		
FYS 100	First Yr Sem Critical Thinking	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
SFT 235 	Intro to Occup Safety (CT)	3
<b>Core 2</b>		
ENG 101 	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
MTH 229 	Calculus/Analytic Geom I (CT)	5
CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
Core II Humanities		
Core II Social Science		
Core II Fine Arts		
<b>Additional University Requirements</b>		
ENGR 451	Intro to Proj Management	3
ENGR 473 	Capstone Senior Design (Writing Intensive)	3
SFT 235 	Intro to Occup Safety (CT) (Multicultural or International)	3
ENGR 473 	Capstone Senior Design (Capstone)	3
<b>Major-Specific</b>		
MTH 229 	Calculus/Analytic Geom I (CT)	5
MTH 230 	Calculus/Analytic Geom II	4
MTH 231 	Calculus/Analytic Geom III	4
MTH 335	Ordinary Diff Equations	3
STA 345	Applied Prob and Stat	3
CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
PHY 211 	University Physics I	4
PHY 202 	General Physics I Laboratory	1
Select one of the following:		
BSC 120 	Principles of Biology I (and 120L)	
	or BSC 120H Principles of Biology Honors	
CHM 212 	Principles Chemistry II (and CHM 218)	
MTH 300	Intro to Higher Math	
MTH 329	Elementary Linear Algebra	

PHY 213 	University Physics II (and PHY 204)	
STA 445	Probability & Statistics I	
ENGR 103	Freshman Engineering Seminar	1
ENGR 104	The Engineering Profession	1
Select one of the following:		
CE 102	Introduction to CAD	
ENGR 102	Introduction to CAD	
Select one of the following:		
CS 110	Computer Science I	
ENGR 111	Engineering Computations	
ME 111	Mech Engineering Computations	
ENGR 213	Statics	3
ENGR 214	Dynamics	3
ENGR 215	Engineering Materials	3
ENGR 216	Mech of Deformable Bodies	3
ENGR 217	Engineering Career Preparation	1
ENGR 219	Engineering Thermodynamics	3
ENGR 222	Engr Cost Analysis & Economy	3
ENGR 318	Fluid Mechanics	3
ENGR 319	Fluid Mechanics Laboratory	1
ENGR 451	Intro to Proj Management	3
ENGR 473 	Capstone Senior Design	3
ME 245	Circuits and Instrumentation	3
ME 330	Manufacturing Methods/Design	3
SFT 235 	Intro to Occup Safety (CT)	3
Engineering Elective Option		
Select one of the following: Any 300-level or higher BME, CE, EE, ENGR, IE, or ME course not taken to satisfy degree requirements or area of emphasis requirements.		
<b>Area of Emphasis Requirements</b>		<b>24-33</b>