



# CIVIL ENGINEERING, B.S.C.E.















 - 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.

A minimum of 124 credit hours of coursework is required to complete the B.S.C.E. degree.

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/>.


## Course Requirements

Code	Title	Credit Hours
<b>Core Curriculum</b>		
<i>Core I</i>		
FYS 100	First Yr Sem Critical Thinking	3
Core I Critical Thinking		3
Core I Critical Thinking		3
<i>Core II</i>		
ENG 101 	Beginning Composition	3
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
	or CMM 104H Honors in Speech Comm	
		
	or CMM 207 Bus & Prof Communication	
		
Core II Mathematics (Requirement met in major)		3
Core II Physical or Natural Science (Requirement met in major)		4
Core II Social Science		3
Core II Humanities		3
Core II Fine Arts		3
<i>Additional University Requirements</i>		
Writing Intensive		3
Writing Intensive		3
Multicultural or International		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
CHM 212 	Principles Chemistry II	3
CHM 218 	Principles of Chem Lab II	2
PHY 211 	University Physics I	4
PHY 202 	General Physics I Laboratory	1

ENGR 103	Freshman Engineering Seminar	1
ENGR 104	The Engineering Profession	1
ENGR 111	Engineering Computations	3
ENGR 213	Statics	3
ENGR 214	Dynamics	3
ENGR 216	Mech of Deformable Bodies	3
ENGR 217	Engineering Career Preparation	1
ENGR 222	Engr Cost Analysis & Economy	3
ENGR 318	Fluid Mechanics	3
ENGR 451	Intro to Proj Management	3
CE 452	Senior Seminar of Civil Engr	1
CE 453 	Capstone Senior Design	3
CE 102	Introduction to CAD	2
CE 241	Introduction to Geomatics	3
CE 312	Structural Analysis	3
CE 319	Civil Engr Fluid Mechanics Lab	1
CE 321	Civil Engineer Materials	4
CE 322	Geotechnical Engineering	4
CE 331	Hydraulic Engineering	3
CE 342	Transportation Engineering	3
CE 351	Environmental Engineering	3

Code	Title	Credit Hours
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*CE Design, Design Elective and Technical Electives*

CE 453 	Capstone Senior Design	3
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To be eligible to take Capstone Senior Design (CE 453), students must have completed Introduction to Project Management (ENGR 451) and at least one CE Design Elective.

<i>CE Design Electives</i>		6
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Select at least two CE design electives from the following:

CE 413	Reinforced Concrete	
	or CE 414 Structural Steel Design	
CE 425	Foundation Engineering	
	or CE 426 Retaining Structures and Slope	
CE 434	Water/Wastewater Trtmt Dsgn	
CE 438	Pavement Design and Management	
	or CE 443 Transportation Systems Design	

<i>CE Electives</i>		6
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Select at least two CE electives from the following, excluding courses that are taken to satisfy the CE Design Electives:

CE 341	Advanced Geomatics	
CE 413	Reinforced Concrete	
CE 414	Structural Steel Design	
CE 415	Advanced Reinforced Concrete	
CE 425	Foundation Engineering	
CE 426	Retaining Structures and Slope	
CE 433	Hydrologic Engineering	
CE 434	Water/Wastewater Trtmt Dsgn	
CE 438	Pavement Design and Management	
CE 443	Transportation Systems Design	

Any 300 -level or higher CE course not taken to satisfy a CE Design Elective or a CE Elective.

*Technical Elective*

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Select one technical elective that satisfies one of the criteria below:

Any 300-level or higher CE course not taken to satisfy a CE Design Elective or CE Elective.

Any 3- or 4-hour, 200-level or higher ENGR, ME, or EE course (except ENGR 215, ENGR 280-283, or ENGR 290), or other course with advance approval from the student's advisor and chair.

## Major Information

- Students are required to know and track their degree requirements for graduation or for entrance to a professional school.
- Course offerings and course attributes are subject to change each semester. Please consult each semester's schedule of courses for availability and attributes.