

# BACHELOR OF SCIENCE CIVIL ENGINEERING *General*

Civil Engineering students learn scientific principles and modern computational tools to be able to conceive, plan, and design facilities that maintain, protect, and enhance the quality of life in our society. Graduates of our program serve as leaders on projects such as network of highways, airports, bridges, buildings, dams, tunnels, environmental pollution control systems, water purification and distribution systems, and urban transportation systems. Students train in five different areas: structural engineering; transportation engineering; environmental engineering, geotechnical engineering, and water resources engineering. Our majors are prepared to impact global society as leaders in engineering, construction, project management, and public service.

*College of  
Science,  
Engineering,  
and Technology*



## COURSE TYPE DESCRIPTIONS

General Education Core	GEC	<b>General Education Core (GEC)</b> courses are courses that every student must take in order to obtain a degree from Jackson State University. GEC courses are essential to every undergraduate degree at Jackson State University. Collectively, there are 30 credit hours of GEC course requirements.
General Education Pathway	PATH	<b>General Education Pathway (PATH)</b> courses are courses that are connected through interdisciplinary themes and are selected at the student's discretion to fulfill the general education curriculum. Through experiential learning and reflective writing, students will have the opportunity to integrate knowledge across courses, develop their skills and an enhanced sense of civic responsibility. Students select nine (9) hours from the pathway of choice. Each pathway concludes with a related one (1) credit hour a University Required (UR) course.
University Required	UR	<b>University Required (UR)</b> courses are courses that are specific to Jackson State University and are designed to integrate students within the Jackson State University community by promoting student success resources, strategies and high impact practices.
Degree Program Requirement	DPR	<b>Degree Program Required (DPR)</b> courses are courses that are required for completion of a degree program within the specified major.
Electives	DPE or GEL	<b>Electives</b> are courses selected at a student's discretion and provide opportunities for students to pursue their academic interests. There are two types of electives. <b>Degree Program Elective (DPE)</b> courses are elective courses that are partially restricted such that students select courses from a specified group of identified courses (e.g., departmental elective courses) to fulfill a particular requirement. <b>General Elective (GEL)</b> courses are courses that may be selected from any program for which the student has fulfilled the proper prerequisites.
Professional Concentrations	PC	<b>Professional Concentration (PC)</b> courses complement Degree Program Required courses and allow students to have a concentrated area of study within the major.

**COLLEGE OF  
SCIENCE, ENGINEERING, AND TECHNOLOGY  
CIVIL ENGINEERING –GENERAL**

**FRESHMAN YEAR FALL 1ST SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
UNIV 100	University Success	2	UR		
MATH 241	Calculus I with Laboratory	3	GEC		
CHEM 141 & CHML 141	General Chemistry I & Lab	4	GEC		
ENG 104	Composition I	3	GEC		
	Humanities & Fine Arts Option	3	GEC		
	<b>TOTAL CREDIT HOURS</b>	<b>15</b>	<b>TERM GPA:</b>		

Comments:

**FRESHMAN YEAR SPRING 2ND SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 242	Calculus II with Laboratory	3	DPR		
PHY 211 & PHYL 211	General Physics I & Lab	4	GEC		
ENG 105	Composition II	3	GEC		
	Social & Behavioral Science Option	3	GEC		
	Pathway Option	3	PATH		
	<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TERM GPA:</b>		

Comments:

**SOPHOMORE YEAR FALL 1ST SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 243	Calculus III with Laboratory	3	DPR		
PHY 212 & PHYL 212	General Physics II and Lab	4	DPR		
CIV 222	Engineering Mechanics I	3	DPR		
CIV 201	Engineering Graphics	2	DPR		
BIO 101 & BIOL 101 or SCI 205	Introduction to Biology & Lab or Earth Space Science	3	DPR		
	Pathway Option	3	PATH		
	<b>TOTAL CREDIT HOURS</b>	<b>18</b>	<b>TERM GPA:</b>		

Comments: CIV 201 is offered in fall semesters.

**SOPHOMORE YEAR SPRING 2ND SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 244	Calculus IV with Laboratory	3	DPR		
MATH 368	Ordinary Differential Equations I	3	DPR		
CIV 223	Engineering Mechanics II	3	DPR		
CIV 240	Strength of Materials	3	DPR		
UNIV 200	Civic Engagement	1	UR		
	Pathway Option	3	PATH		
	<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TERM GPA:</b>		

Comments:

**JUNIOR YEAR FALL 1ST SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
MATH 307	Probability & Statistics for Engineering	3	DPR		
CIV 320	Structural Analysis	3	DPR		
CIV 330	Fluid Mechanics	3	DPR		
CIV 340 & CIVL 340	Introduction to Environmental Engineering and Lab	4	DPR		
CIV 355	Engineering Economy	3	DPR		
	TOTAL CREDIT HOURS	16	TERM GPA:		

Comments: CIVL 330 has been detached from CIV 330 and is offered in the following semester.

**JUNIOR YEAR SPRING 2ND SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
CIV 360	Design of Steel Structure	3	DPR		
CIV 370	Water Resources Engineering	3	DPR		
CIV & CIVL 380	Introduction to Geotechnical Engineering and Lab	4	DPR		
CIV 390	Introduction to Transportation Engineering	3	DPR		
CIVL 330	Fluid Mechanics Lab	1	DPR		
	Civil Engineering Elective	3	DPE		
	TOTAL CREDIT HOURS	17	TERM GPA:		

Comments:

**SENIOR YEAR FALL 1ST SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
CIV 410	Capstone Design I	3	DPR		
CIV 420	Design of Concrete Structures	3	DPR		
CIVL 421	Structural Engineering Lab	1	DPR		
CIV 430	Foundation Engineering	3	DPR		
CIV 461	Professional & Ethical Issues in Civil Engineering	1	DPR		
	Civil Engineering Elective	3	DPE		
	Civil Engineering Elective	3	DPE		
	TOTAL CREDIT HOURS	17	TERM GPA:		

Comments: CIV 461 is offered in the first senior semester.

**SENIOR YEAR SPRING 2ND SEMESTER**

COURSE	COURSE TITLE	CREDIT HOURS	COURSE TYPE	GRADE	SUCCESS MARKER/NOTE
CIV 411	Capstone Design I	3	DPR		
	Civil Engineering Elective	3	DPE		
	Civil Engineering Elective	3	DPE		
	Humanities & Fine Arts Option	3	GEC		
	TOTAL CREDIT HOURS	12	TERM GPA:		

Comments:

**TOTAL HOURS: 127 REQUIRED**

Candidates that transfer 12 or more hours of college credit are exempt from UNIV 100: University Success; however, the student must take 2 hours of general electives to replace UNIV 100.

Student Signature: \_\_\_\_\_

Advisor Signature: \_\_\_\_\_