

# CIVIL ENGINEERING, BACHELOR OF SCIENCE (BS)

## Recommended Four-Year Plan

Course	Title	Hours
<b>First Year</b>		
<b>Fall</b>		
ENGR 110	Introduction to Engineering	2
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
ENGL 102	Critical Writing	3
ESAP 101	FYRST Seminar *	0-1
MATH 225	Calculus I	4
SUBJ 139	Foundations of Academic Discovery <sup>2</sup>	3
<b>Hours</b>		<b>16-17</b>
<b>Spring</b>		
ENGR 120	Engineering Design Tools	2
ENGL 104	Critical Reading	3
MATH 230	Calculus II	4
PHYS 216	University Physics 1 with Lab	4
Creative & Aesthetic Inquiry ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> )		3
<b>Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall</b>		
ENGR 130	Engineering Computing Tools	2
BIOL 105	Environmental Biology	3
MATH 301	Differential Equations I	3
ENGR 210	Statics	3
PHYS 217	University Physics 2 with Lab	4
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
<b>Hours</b>		<b>18</b>
<b>Spring</b>		
ENGR 220	Engineering Materials	3
ENGR 230	Mechanics of Materials	3
ENGR 231	Mechanics of Materials Lab	1
STAT 350	Applied Statistics	3
MATH 232	Linear Algebra	3
Social Science Inquiry ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> )		3
<b>Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall</b>		
CIVL 210	Elementary Survey	3
CIVL 310	Structural Engineering	4
CIVL 320	Transportation Engineering	3
CIVL 340	Geotechnical Engineering	3

ENGR 301	Fluid Mechanics	3
<b>Hours</b>		<b>16</b>
<b>Spring</b>		
ENGR xxx	Engineering Elective	3
CIVL 330	Environmental Engineering	4
CIVL 350	Water Resources Engineering	3
CIVL 420	Traffic Engineering	3
Humanities Inquiry ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/</a> )		3
<b>Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall</b>		
CIVL 410	Structural Steel Design	3
CIVL 411	Reinforced Concrete Design	3
CIVL 430	Storm Water Management	3
CIVL 460	Capstone Design I	3
ENGR 340	Engineering Economics	3
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
CIVL 440	Construction Management	3
CIVL 461	Capstone Design II	3
CIVL 4xx	Civil Engineering Elective	3
CIVL 4xx	Civil Engineering Elective	3
Elective		3
<b>Hours</b>		<b>15</b>
<b>Total Hours**</b>		<b>128</b>

<sup>1</sup> Recommended: ECON 201 Macroeconomics

<sup>2</sup> Course offered in multiple subjects; cannot take course in first major subject.

\* Students are encouraged to take ESAP 101 as a Free Elective.

\*\* This document is meant to serve as a guide. Some planners may show more than 120 credits because faculty have created flexibility in choosing courses. However, only 120 credits are required to obtain a degree. Please consult with your academic adviser and refer to your curriculum guide prior to registering for courses. This plan should be reviewed, and verified, by you and your academic adviser at least once each academic year.

Major Code: 6183

Revised: 07.27.2023