

# Bachelor of Science in CIVIL ENGINEERING

## 2019-2020 Academic Catalog

Total Credits: 127-129

<http://coen.boisestate.edu/ce/>

UPDATED: April 2019

FIRST YEAR	FALL Semester			SPRING Semester			FIRST YEAR
	MATH 170 (FM)	Calculus I: Concepts and Applications	4	MATH 175	Calculus II: Concepts and Applications	4	
	CMGT 120	Introduction to Construction Management	3	PHYS 211 (FN)	Physics I with Calculus	4	
	UF 100	Foundations of Intellectual Life	3	PHYS 211L (FN)	Physics I with Calculus Lab	1	
	ENGL 101 (FW)	Introduction to College Writing	3	ENGL 102 (FW)	Introduction to College Writing and Research	3	
	ENGR 180	Communication in Design Thinking	3	CE 286	Introduction to AutoCAD for Civil Engineers	2	
			CE 280	Civil Engineering Case Studies	2		
<b>SEMESTER TOTAL</b>			<b>16</b>	<b>SEMESTER TOTAL</b>		<b>16</b>	

SECOND YEAR	FALL Semester			SPRING Semester			SECOND YEAR
	CHEM 111 (FN)	General Chemistry I	3	CHEM 112	General Chemistry II	3	
	CHEM 111L (FN)	General Chemistry I Laboratory	1	CHEM 112L	General Chemistry II Laboratory	1	
	MATH 275	Multivariable and Vector Calculus	4	MATH 333	Differential Equations with Matrix Theory	4	
	ENGR 210	Engineering Statics	3	CE 350 or ME 350	Mechanics of Materials or Engineering Mechanics of Materials	3	
	MATH 360 or MATH 361	Engineering Statistics or Probability and Statistics I	3	UF 200	Foundations of Ethics and Diversity	3	
	CMGT 210	Construction Surveying and Layout	2	ENGL 202 (FS)	Introduction to Technical Communication	3	
	CMGT 211	Construction Surveying and Layout Lab	1				
	<b>SEMESTER TOTAL</b>			<b>17</b>	<b>SEMESTER TOTAL</b>		

### ADMISSION TO UPPER DIVISION REQUIREMENTS

The following courses must be completed in order to apply for *Admission to Upper Division*:

**CE 280, CHEM 112, CE or ME 350, MATH 275, MATH 333, and MATH 360 or MATH 361**

Check our website for minimum GPA required in these courses and other requirements to be successfully admitted.

THIRD YEAR	FALL Semester			SPRING Semester			THIRD YEAR	
	CE 320	Principles of Environmental Engineering	3	CE 370	Transportation Engineering Fundamentals	3		
	CE 321	Principles of Environmental Engineering Lab	1	CE or ME 330	Fluid Mechanics	3		
	CE 352	Structures I	3	CE or ME 331	Fluid Mechanics Lab	1		
	CE 340	Engineering Properties of Construction Materials	3	FC	Foundations of Oral Communication	3		
	CE 341	Construction Materials Lab	1	CE 360	Engineering Properties of Soils	3		
	ENGR 220	Engineering Dynamics	3	CE 361	Engineering Properties of Soils Lab	1		
	CE 284 or CS 117	Civil Engineering Computational Methods or C++ for Engineers	2/3	ME 302 or ENGR 240	Thermodynamics I or Electrical and Electronic Circuits	3/3		
	<b>SEMESTER TOTAL</b>			<b>16-17</b>	<b>SEMESTER TOTAL</b>			<b>17</b>

FOURTH YEAR	FALL Semester			SPRING Semester			FOURTH YEAR
	CE 481	Senior Design Project I	1	FH	Foundations of Humanities	3-4	
	FA	Foundations of Art	3	CE-TE	CE Technical Elective	3	
	FS	Foundations of Social Sciences	3	TechE	Technical Elective	3	
	CE-DE	CE Design Elective	3	CE 483 (FF)	Senior Design Project II	3	
	CE-TE	CE Technical Elective	3				
	SciE	Science Elective	3-4				
<b>SEMESTER TOTAL</b>			<b>16-17</b>	<b>SEMESTER TOTAL</b>		<b>12-13</b>	

Offered **FALL** Semester Only

Offered **SPRING** Semester Only

### UNIVERSITY FOUNDATIONS REQUIREMENTS

**FA:** Foundations of Arts

**FC:** Foundations of Oral Communication

**FF:** Finishing Foundations

**FH:** Foundations of Humanities

**FM:** Foundations of Mathematics

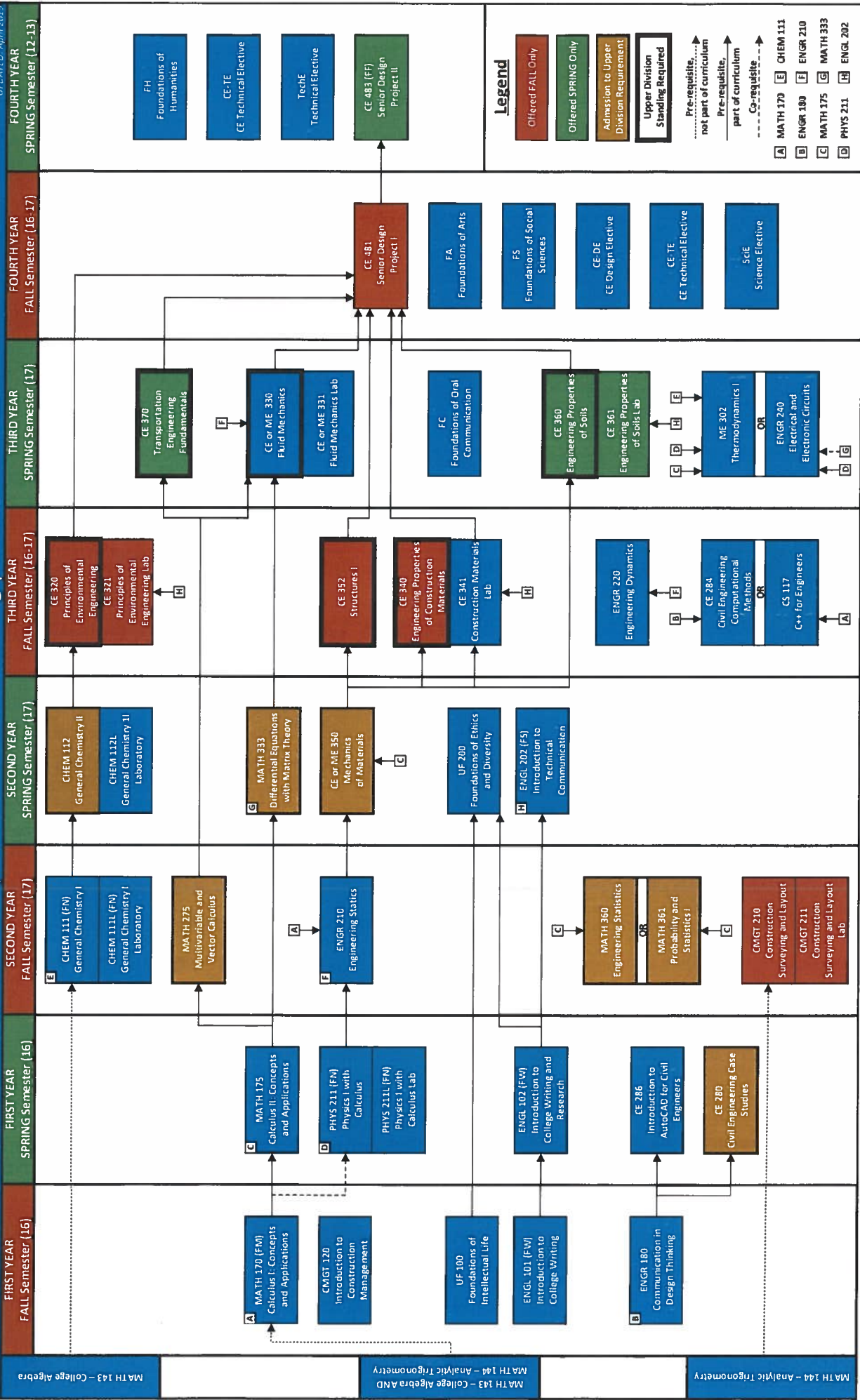
**FN:** Foundations of Natural, Physical, and Applied Sciences

**FS:** Foundations of Social Sciences

**FW:** Foundations of Writing

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## Legend

- Offered FALL Only
- Offered SPRING Only
- Admission to Upper Division Requirement
- Upper Division Standing Required
- Pre-requisite, not part of curriculum
- Pre-requisite, part of curriculum
- Co-requisite

- A MATH 170
- B ENGR 180
- C MATH 175
- D PHYS 211
- E CHEM 111
- F ENGR 210
- G MATH 333
- H ENGL 202