# Civil Engineering A.S. Degree

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

**First Year** 

Seme	Semester 1 16 Un				
CAT.	COURSE	TITLE	UNIT	GE AREA	
Req	MATH 400	Calculus I	5	IIb MC	
Req	CHEM 400	General Chemistry I	5	IV	
RC	ENGR 300	Introduction to Engineering	1		
GE		any Area I (Humanities) course	3	1	
GE		any Area IIIb (Life Development Skills) course	2	IIIb	

#### Semester 2

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	MATH 401	Calculus II	5	
Req	PHYS 410	Mechanics of Solids and Fluids	5	
Req	ENGR 312	Engineering Graphics	3	
GE	ENGWR 300 / 480 <sup>H</sup>	College Composition	3	lla WC

# Second Year

#### Semester 3

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	MATH 402	Calculus III	5	
Req	PHYS 421	Electricity and Magnetism	4	
Req	ENGR 310	Engineering Survey Measurements	4	
GE		any Area IIIa (Physical Education) course	1	Illa
GE		any Area Vb (Social & Behavioral Sciences) course	3	Vb

#### Semester 4

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	MATH 420	Differential Equations	4	
Req	ENGR 412	Properties of Materials	4	
Req	ENGR 420	Statics	3	
GE		any Area Va (American Institutions) course	3	Va
GE		any Area VI (Ethnic/Multicultural Studies) course	3	VI

FULL TIME

Catalog: 2024-25

GE Pattern: local AA/AS

Total Units: 66

#### 2 YEARS

## TRANSFER PATH

#### Potential Transfer Majors:

• Civil Engineering B.S.

This map prepares students for the A.S. degree. Additional major requirements and general education courses are needed for transfer. <u>See a</u> <u>counselor</u> to create an educational plan that prepares you to transfer.

## Potential Career/Options After Completing a Bachelor's Degree:

- construction engineer
- geotechnical engineer
- structural engineer
- transportation engineer
- environmental engineer

#### Advising Notes:

- Students can substitute ESLW 340 for ENGWR 300/480.
- This map starts with MATH 400 and CHEM 400, which have prerequisites. Please <u>see a counselo</u> <u>r</u> to add in prerequisite courses, if needed.

## Other Notes to Students Preparing to Transfer:

• Additional coursework may be required. Work with a counselor and <u>ASSIST.ORG</u> to determine the courses needed for your goals.

Honors Courses (H):

#### 17 Units

17 Units

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	EXPLANATION OF CATEGORIES				
Req	Required Core	A course that is required for this program			
RC	Recommended Course	A course that is not part of this program but is included in its roadmap			
GE	General Education	A course that fulfills a specific general education requirement for a degree, which can be replaced with another course that meets the same requirement			

## **Graduation Requirement**

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency WC = Writing Competency

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Students with a cumulative GPA of 3.2 or better who complete 15 or more units of Honors coursework earn an <u>H</u> <u>onors</u> Transfer Certificate and can take advantage of honors-to-honors transfer agreements with highly selective colleges and universities, both public and private.