

**CIVIL ENGINEERING PROGRAM CHART**

STUDENTS EARNING AN ABET ACCREDITED DEGREE IN CIVIL ENGINEERING MUST COMPLETE A MINIMUM OF 15 UNITS OF STUDY ARRANGED IN ACCORDANCE WITH THE DISTRIBUTION REQUIREMENTS. THIS CHART SUMMARIZES COURSE RECOMMENDATIONS—SEE YOUR ADVISOR TO DEVELOP YOUR PROGRAM SCHEDULE.

MATHEMATICS	SCIENCE †
<b>4 Units Required</b>	
MA1020/1021*	CH 1010
MA 1022*	CH 1020
MA 1023*	CH 1030
MA 1024	PH 1110
MA 2051*	PH 1120
MA 2071	PH 1130
MA 2210	BB 1001
MA 2611*	GE 2341

**NOTES**

Basic math and science courses should be completed early in the curriculum, prior to taking many CE courses. Students may select from other math and science courses in addition to those listed here.

\* Mathematics requirements include differential and integral calculus, differential equations, and probability and statistics.

† Science: Must include both chemistry and physics with a minimum of one course in physics and two courses in chemistry.

<b>ENGINEERING SCIENCE AND DESIGN</b>						
<b>6 Units Minimum Required</b>						
<b>(Minimum 4 Units in the Civil Engineering area as noted in Distribution Requirements)</b>						
Fundamental Courses	CE 1030 (1), CE 2000 (1), CE 2001 (1), CE 2020 (3), ES 3004 (1), CE 3041					
Background Courses	CE 3030, ES 2503 (1), ES 3001 (1,2), ECE 3601 (1,2)					
Area (4,5)	Structural	Geotechnical	Environmental and Hydraulics	Urban and Environmental Planning	Transportation	Construction and Management
Breadth	CE 3010	CE 3041	CE 3059	CE 3070	CE 3050	CE 3020 (1)
Depth	CE 2002 CE 3006 CE 3008 CE 3026 (3) CE 4007 CE 4017	CE 3044 CE 4046 (3)	CE 3060 CE 3061 CE 3062 CE 4060 (3) CE 4061 CE 4600	CE 3074 CE 4071	CE 3051 CE 4054 (3)	CE 3021 CE 3022 (1) CE 3023 CE 3024 (3)
MQP	1 Unit Emphasizing Design (in area of choice) Should be completed in senior year and meet capstone design requirement.					

**NOTES**

1. Includes material covered on Fundamentals of Engineering General Exam.
2. Meets the requirement for at least one engineering science course outside of Civil Engineering.
3. Meets the requirement for appropriate laboratory experience (two laboratory courses required).
4. To demonstrate breadth, students must select courses from a minimum of four areas. Courses should also be selected to demonstrate depth in at least one area.
5. Many areas are interrelated. See your advisor for information on depth courses that are related to your area of interest.

**ADDITIONAL DEGREE REQUIREMENTS**  
**4 UNITS REQUIRED**

Social Science	2/3 Units
Humanities and Arts	2 Units
IQP	1 Unit
Physical Education	1/3 Unit