

# CIVIL ENGINEERING CURRICULUM EFFECTIVE FALL 2016

## FIRST YEAR

CE 1105 ..... 1	CE 1252 ..... 2
CHEM 1465 ..... 4	HIST 1311 <sup>C</sup> ..... 3
ENGL 1301 <sup>C</sup> ..... 3	MATH 2425 <sup>C</sup> ..... 4
ENGR 1300 ..... 3	PHYS 1443 <sup>C</sup> ..... 4
MATH 1426 ..... 4	POLS 2311 <sup>C</sup> ..... 3
<u>15</u>	<u>16</u>

## SECOND YEAR

CE 2153 ..... 1	CE 2221 ..... 2
CE 2311 ..... 3	CE 2313 ..... 3
CE 2331 ..... 3	COMS 2302 <sup>C</sup> ..... 3
HIST 1312 <sup>C</sup> ..... 3	GEOL 3340 ..... 3
MATH 2326 <sup>C</sup> ..... 3	IE 2308 <sup>C</sup> ..... 3
PHYS 1444 <sup>C</sup> ..... 4	MATH 3319 ..... 3
<u>17</u>	<u>17</u>

See "Civil Engineering Course Sequence" on reverse side for frequency of CE course offerings.

## THIRD YEAR

CE 3210 ..... 2	CE 3302 ..... 3
CE 3261 + CE 3161 ..... 3	CE 3311 ..... 3
CE 3301 (or IE 3301) ..... 3	CE 3334 + CE 3131 ..... 4
CE 3305 ..... 3	CE 3342 + CE 3142 ..... 4
CE 3341 ..... 3	POLS 2312 <sup>C</sup> ..... 3
CE 3343 + CE 3143 ..... 4	<u>17</u>
<u>18</u>	

## FOURTH YEAR

CE 4347 ..... 3	CE 4383 ..... 3
CE 4352 ..... 3	CE Technical Elective <sup>1</sup> ..... 3
CE Technical Elective <sup>1</sup> ..... 3	CE Technical Elective <sup>1</sup> ..... 3
CE Technical Elective <sup>1</sup> ..... 3	CE Technical Elective <sup>1</sup> ..... 3
Language/Philosophy/Culture Elective <sup>C,1</sup> ..... 3	Creative Arts Elective <sup>C,1</sup> ..... 3
<u>15</u>	<u>15</u>

**Six (6) hours of Foreign Language are required for students who have not had 2 units of high school foreign language.**

## REQUIRED COURSE TITLES

### COMMUNICATIONS

ENGL 1301 <sup>C</sup>	Rhetoric & Composition I
COMS 2302 <sup>C</sup>	Professional & Technical Communication for Science & Engineering

### HISTORY

HIST 1311 <sup>C</sup>	History of the US to 1865
HIST 1312 <sup>C</sup>	History of the US, 1865 to Present

### GOVERNMENT/POLITICAL SCIENCE

POLS 2311 <sup>C</sup>	Government of the United States
POLS 2312 <sup>C</sup>	State and Local Government

### MATHEMATICS

MATH 1426 <sup>C</sup>	Calculus I
MATH 2425 <sup>C</sup>	Calculus II
MATH 2326 <sup>C,2</sup>	Calculus III
MATH 3319	Differential Equations and Linear Algebra

### LIFE AND PHYSICAL SCIENCE

CHEM 1465	Chemistry for Engineers
GEOL 3340	Geology for Engineers
PHYS 1443 <sup>C</sup>	General Technical Physics I
PHYS 1444 <sup>C</sup>	General Technical Physics II

### SOCIAL & BEHAVIORAL SCIENCES

IE 2308 <sup>C</sup>	Engineering Economics
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### CIVIL ENGINEERING (ABET Proficiency test)

CE 1104	Introduction to Engineering
CE 1105	Introduction to Civil Engineering
CE 1252	Computer Tools - AutoCAD
CE 2153	Computer Tools - Civil 3D
CE 2221	Dynamics
CE 2311	Statics
CE 2313	Mechanics of Materials I
CE 2331	Engineering Measurement & Computer Modeling
CE 3110	Civil Engineering Communications
CE 3261	Properties and Behavior of CE Materials
CE 3301	Stochastic Models for Civil Engineering
CE 3302	Transportation Engineering ( <i>Transportation</i> )
CE 3305	Basic Fluid Mechanics ( <i>Water Resources</i> )
CE 3311	Construction Engineering
CE 3334	Principles of Environmental Engineering
CE 3341	Structural Analysis ( <i>Structures</i> )
CE 3342	Introduction to Water Resources ( <i>Water Resources</i> )
CE 3343	Soil Mechanics ( <i>Geotechnical</i> )
CE 4347	Reinforced Concrete Design
CE 4352	Professional Practice
CE 4383	Senior Project

### CIVIL ENGINEERING LABORATORIES

CE 3131	Environmental Analysis
CE 3142	Applied Fluid Mechanics Lab
CE 3143	Properties and Behavior of Soils
CE 3161	CE Materials Laboratory

<sup>C</sup> Indicates Core Curriculum Requirement

<sup>1</sup> See reverse side of this sheet for Approved Electives for Civil Engineering Majors

<sup>2</sup> Required for C E majors as Foundational Component Area core.

## APPROVED ELECTIVES FOR CIVIL ENGINEERING MAJORS

### CIVIL ENGINEERING TECHNICAL ELECTIVES

Fifteen hours of senior technical electives are required, including one **design course** (shown in **bold** print below). Twelve hours to be selected from *four* of the following six areas: Construction, Environmental, Geotechnical, Structures, Transportation or Water Resources. The remaining six hours may be from any CE technical elective area.

CONSTRUCTION	4305, 4306, <b>4332</b>
ENVIRONMENTAL	4350, 4351, <b>4353</b> , 4354, <b>4355</b>
GEOTECHNICAL	<b>4320</b> , <b>4321</b> , <b>4322</b> , <b>4323</b> , 4336, 4337
TRANSPORTATION	4311, <b>4312</b> , <b>4313</b> , 4314
WATER RESOURCES	4326, <b>4328</b> , 4330, 4358
STRUCTURES	4324, 4325, 4348, 4360, 4361, 4363, 4365, 4366, 4368, 4369

CE 4300 Advanced Topics courses, when offered, may be used for the area to which the topic is pertinent.

### CREATIVE ARTS ELECTIVE

Any course which satisfies the University Core Curriculum requirement for Creative Arts is accepted. A list is available in the Department office.

### LANGUAGE, PHILOSOPHY & CULTURE ELECTIVE

Any course which satisfies the University Core Curriculum requirement for Language, Philosophy & Culture is accepted. A list is available in the Department office.

## PREREQUISITES AND COURSE SEQUENCE

Information provided here and on the Civil Engineering Advising and Course Selection Guide is to assist students in planning the sequence of courses required for an undergraduate degree in Civil Engineering. Requirements for the degree are listed in the current University of Texas at Arlington Undergraduate Catalog. Students should refer to the catalog to confirm prerequisite requirements and consult with the Department if additional clarification is required.

### CIVIL ENGINEERING PREREQUISITES

Students may not attempt a CE course until they have earned a grade of C or better in the prerequisite course(s).

### CIVIL ENGINEERING COURSE SEQUENCE

The sequence of courses shown on the front side of this form will satisfy the required prerequisites and allow a student to graduate in four years. However, it may be necessary to modify this course sequence for a number of reasons. A CE Undergraduate Advisor will help select the sequence of courses suitable for each student.

The CE Department intends to offer CE 1000, CE 2000, CE 3000, CE 4347, CE 4352, and CE 4383 each fall and spring semester. Civil Engineering Technical Elective Courses will not be offered every semester. A multi-year schedule of when technical electives will be offered is available in the Department office.

Certain CE courses will also be offered in the summer 11-week semester. The courses selected will depend on anticipated need, faculty availability, and budget. **At this time, students should not plan their long term schedules assuming that particular courses will be offered in summer.**