

## First Year

### Fall Semester – 15 Semester Credit Hours

**CE 1105** Introduction to Civil Engineering  
**CHEM 1465** Chemistry for Engineers  
**ENGL 1301** Rhetoric and Composition I  
**CE 1252** Computer Tools-AutoCAD  
**ENGR 1101** Entrance to Engineering for Transfer Students  
or *UNIV 1131*  
**MATH 1426** Calculus I

### Spring Semester – 17 Semester Credit Hours

**IE 2308** Engineering Economy  
**HIST 13XX** U.S. History Elective  
**MATH 2425** Calculus II  
**PHYS 1443** General Technical Physics I  
**POLS 2311** Government of the United States

## Second Year

### Fall Semester – 17 Semester Credit Hours

**CE 2311** Statics  
**CE 2153** Computer Tools -CIVL 3D  
**COMS 2302** Professional & Technical Communications for Scientists & Engineers  
**HIST 13XX** U.S. History Elective  
**MATH 2326** Calculus III  
**PHYS 1444** General Technical Physics II

### Spring Semester – 17 Semester Credit Hours

**CE 2221** Dynamics  
**CE 2313** Mechanics of Materials  
**CE 2331** Engineering Measurement & Computer Modeling  
**GEOL 3340** Geology for Engineers  
**CE 3301** Stochastic Models for CE  
**MATH 3319** Differential Equations & Linear Algebra

## Third Year

### Fall Semester – 18 Semester Credit Hours

**CE 3210** CE Communications  
**CE 3253** Applications of Computer-Based Design Programs in CE  
**CE 3305** Basic Fluid Mechanics  
**CE 3142** Applied Fluid Mechanics Lab  
**CE 3341** Structural Analysis  
**CE 3343** Soil Mechanics  
**CE 3143** Properties & Behavior of Soils  
**POLS 2312** State and Local Government

### Spring Semester – 16 Semester Credit Hours

**CE 3302** Transportation Engineering  
**CE 3361** Property & Behavior of CE Materials  
**CE 3311** Construction Engineering  
**CE 3342** Introduction to Water Resources  
**CE 3334** Principles of Environmental Engineering  
**CE 3131** Environmental Analysis

## Fourth Year

### Fall Semester – 15 Semester Credit Hours

**CE 4347** Reinforced Concrete Design  
**CE 4328** Water Systems Design  
**CE 4352** Professional Practice  
**CE 43XX** Senior Technical Elective (1)  
**Language, Philosophy, and Culture Elective**

### Spring Semester – 15 Semester Credit Hours

**CE 4383** Senior Project  
**CE 43XX** Senior Technical Elective (2)  
**CE 43XX** Senior Technical Elective (3)  
**CE 43XX** Senior Technical Elective (4)  
**Creative Arts**

**Creative Arts Elective**

COE Foreign Language Requirement: Two years of same foreign language in high school or six semester credit hours of the same foreign language.

**General Core Requirements**

- The UTA Civil Engineering Program requires one (three SCH) *Creative Arts Elective*. This elective can be chosen from the following list of courses offered at UTA.

ARCH 1301	Introduction to Architecture & Interior Design
ART 1301	Art Appreciation
ART 1309	Art of the Western World I
ART 1310	Art of the West II
MUSI 1300	Music Appreciation
THEA 1342	Theatre and Film Appreciation
THEA 1343	Introduction to Theatre
MUSI 1302	Jazz Appreciation
MUSI 2300	Intro to World Music
MUSI 2301	Film Music Appreciation

- Students majoring in Civil Engineering must take **IE 2308**, which is a *Social & Behavioral Sciences* elective option. If a student has taken a different course from the approved Social & Behavioral Sciences elective list, it will be counted as part of your core curriculum. However, IE 2308 will also need to be completed to satisfy the course requirement for the Architectural Engineering degree plan.
- The UTA Civil Engineering Program requires one (three SCH) *Language, Philosophy & Culture* Elective. This elective can be chosen from the following list of courses offered at UTA.

ANTH 2322	GLOBAL CULTURES
ARAB 2310	ARABIC CULTURE IN THE WORLD
ARAB 2314	INTERMEDIATE ARABIC II
ARCH 2300	MASTERWORKS OF WESTERN ARCH
ART 1317	INTRODUCTION TO ART HISTORY III
ASL 2314	INTER AMERICAN SIGN LANGUAGE II
CHIN 2310	CHINESE CULTURE IN THE WORLD
CHIN 2314	INTERMEDIATE CHINESE II
CLAS 1300	INTRO TO CLASSICAL MYTHOLOGY
WOMS 2315	INTRODUCTION TO LGBTQ+ STUDIES
ENGL 2303	TOPICS IN LITERATURE
ENGL 2309	WORLD LITERATURE
ENGL 2319	BRITISH LITERATURE
ENGL 2329	AMERICAN LITERATURE
FREN 2310	FRENCH CULTURES IN THE WORLD
FREN 2314	INTERMEDIATE FRENCH II
GLOBAL 2301	INTRODUCTION TO GLOBAL ISSUES
GREK 2314	GREEK LEVEL IV
HIST 2377	FLIGHT CULTURE & HUMAN EXPERIENCE
KORE 2310	KOREAN CULTURE IN THE WORLD
KORE 2314	INTERMEDIATE KOREAN II
LATN 2314	LATIN LEVEL IV
LING 2371	LANGUAGE IN A MULTICULTURAL USA
MAS 2300	INTRO TO MEXICAN AMERICAN STUDIES
PHIL 1304	CONTEMPORARY MORAL PROBLEMS
PHIL 2300	INTRODUCTION TO PHILOSOPHY
PORT 2314	INTERMEDIATE PORTUGUESE II
RUSS 2310	RUSSIAN CULTURE IN THE WORLD
RUSS 2314	INTERMEDIATE RUSSIAN II
SOCI/INTS 1310	INTRODUCTION TO POPULAR CULTURE
SPAN 2314	INTERMEDIATE SPANISH II
SPAN 2310	HISPANIC CULTURE IN THE WORLD
SPAN 2315	INTERM SPAN HERITAGE SPEAKERS

**Senior Elective**

A list of Civil Engineering Senior Technical Electives is available upon request.

# **Civil Engineering Curriculum & Prerequisites – 2025-2026**

## **Freshman Year, Fall Semester**

15 Semester Credit Hours

### **Pre-Professional Courses:**

*CE 1105 Introduction to Civil Engineering*

*CHEM 1465 Chemistry for Engineers – Corequisite: MATH 1421*

*ENGL 1301 Rhetoric and Composition I*

*CE 1252 Computer Tools- Corequisite: MATH 1402*

*UNIV 1131 or ENGR 1101 Entrance to Engineering for Transfer Students*

*MATH 1426 Calculus I*

## **Freshman Year, Spring Semester**

17 Semester Credit Hours

### **Pre-Professional Courses:**

*IE 2308 Engineering Economy – Corequisite: MATH 1426*

*MATH 2425 Calculus II – Prerequisite: MATH 1426*

*PHYS 1443 General Technical Physics I – Prerequisite: MATH 1426*

### **General Education Courses:**

*US History Elective*

*POLS 2311 Government of the US*

## **Sophomore Year, Fall Semester**

17 Semester Credit Hours

### **Pre-Professional Courses:**

*CE 2311 Statics – Prerequisite: PHYS 1443*

*CE2153 Computer Tools-Civil 3D- Prerequisite: CE 1252*

*COMS 2302 Professional & Technical Communication for Scientists & Engineers – Prerequisites: 30 Semester Credit hours completed & ENGL 1301*

*MATH 2326 Calculus III – Prerequisite: MATH 2425*

*PHYS 1444 General Technical Physics II – Prerequisite: PHYS 1443, Corequisite: MATH 2425*

### **General Education Courses:**

*US History Elective*

## **Sophomore Year, Spring Semester**

17 Semester Credit Hours

### **Pre-Professional Courses:**

*CE 2221 Dynamics – Prerequisite: CE 2311 & MATH 2425*

*CE 2313 Mechanics of Materials – Prerequisites: CE 2311 & MATH 2425*

*CE 2331 Engineering Measurement & Computer Modeling – Prerequisite: CE 2153*

*MATH 3319 Differential Equations & Linear Algebra – Corequisite: MATH 2326*

### **Professional Courses:**

*CE 3301 Stochastic Models – Prerequisite: MATH 2425*

*GEOL 3340 Geology for Engineers – Prerequisites: CHEM 1465 & PHYS 1443*

# **Civil Engineering Curriculum & Prerequisites – 2025-2026**

## **Junior Year, Fall Semester**

18 Semester Credit Hours

### **Professional Courses:**

*CE 3210 CE Communications* – Prerequisite: COMS 2302

*CE 3253 Applications of Computer-Based Design Programs in CE* – Prerequisite: CE 2153 & CE 2331

*CE 3305 Basic Fluid Mechanics* – Prerequisite: CE 2311; Corequisite: MATH 3319; Corequisite: CE 3142

*CE 3142 Applied Fluid Mechanics Lab* – Corequisite: CE 3305

*CE 3341 Structural Analysis* – Prerequisite: CE 2313

*CE 3343 Soil Mechanics* – Prerequisite: CE 2313; Corequisite: CE 3143

*CE 3143 Properties & Behavior of Soils* – Corequisite: CE 3343

### **General Education Courses:**

*POLS 2312 State and Local Government*

## **Junior Year, Spring Semester**

16 Semester Credit Hours

### **Professional Courses:**

*CE 3302 Transportation Engineering* – Prerequisite: CE 2331 & CE 3301

*CE 3361 Properties & Behavior of CE Materials* – Prerequisite: CE 3143

*CE 3311 Construction Engineering* – Prerequisite: IE 2308

*CE 3342 Introduction to Water Resources* – Prerequisite: CE 3301 & CE 3305

*CE 3334 Principles of Environmental Engineering* – Prerequisite: CHEM 1465 & CE 3305; Corequisite: CE 3131

*CE 3131 Environmental Analysis* – Corequisite: CE 3334

## **Senior Year, Fall Semester**

15 Semester Credit Hours

### **Professional Courses:**

*CE 4347 Reinforced Concrete Design* – Prerequisite: CE 3341

*CE 4328 Water System Design* – Prerequisite: CE 3342

*CE 4352 Professional Practice* – Prerequisite: CE 3311

*CE 43XX Senior Technical Elective (1)*

### **General Education Courses:**

*Language, Philosophy, and Culture Elective*

## **Senior Year, Spring Semester**

15 Semester Credit Hours

### **Professional Courses:**

*CE 4383 Senior Elective* – Prerequisites: CE 4352, CE4328 or CE4347 and All CE 3000 level courses

*CE 43XX Senior Technical Elective (2)*

*CE 43XX Senior Technical Elective (3)*

*CE 43XX Senior Technical Elective (4)*

### **General Education Courses:**

*Creative Arts Elective*