First Year

Fall Semester - 16 Semester Credit Hours

CE 1105 Introduction to Civil Engineering

CHEM 1465 Chemistry for Engineers

ENGL 1301 Rhetoric and Composition I

CE 1353 Intro to Computer Aided Design Tools in CE

ENGR 1101 Entrance to Engineering for Transfer Students or UNIV 1131

MATH 1426 Calculus I

<u>Spring Semester – 17 Semester Credit Hours</u>

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 - 16 Semester Credit Hours

CE 2311 Statics

CE 2331 Engineering Measurement & Computer Modeling

HIST 13XX U.S. History Elective

MATH 2326 Calculus III

PHYS 1444 General Technical Physics II

Third Year

Fall Semester - 17 Semester Credit Hours

CE 3210 CE Communications

CE 3253 Applications of Computer-Based Design Programs in CE

CE 3361 Property & Behavior of CE Materials

CE 3305 Basic Fluid Mechanics

CE 3341 Structural Analysis

CE 3343 Soil Mechanics

CE 3143 Properties & Behavior of Soils

<u>Spring Semester – 17 Semester Credit Hours</u>

CE 2221 Dynamics

CE 2313 Mechanics of Materials

CE 3301 Stochastic Models for CE

COMS 2302 Professional & Technical Communications for Scientists & Engineers

GEOL 3340 Geology for Engineers

MATH 3319 Differential Equations & Linear Algebra

Spring Semester – 17 Semester Credit Hours

CE 3302 Transportation Engineering

CE 3311 Construction Engineering

CE 3334 Principles of Environmental Engineering

CE 3131 Environmental Analysis

CE 3342 Introduction to Water Resources

CE 3142 Applied Fluid Mechanics Lab

POLS 2312 State and Local Government

Fourth Year

Fall Semester - 15 Semester Credit Hours

CE 3347 Reinforced Concrete Design

CE 3328 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 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.

GERM 2310 German Culture in the World SPAN 2314 Intermediate Spanish II GERM 2314 Intermediate German II WOMS 2310 Intro to Women's & Gender Studies GLOBAL 2301 Introduction to Global Studies			HIST 2377 INTS 1310 KORE 2310 KORE 2314 LATN 2314 LING 2371 MAS 2300 PHIL 1304 PHIL 2300 PORT 2314 RUSS 2310 RUSS 2314 SOCI 1310 SPAN 2310 SPAN 2314 WOMS 2310	Flight Culture and the Human Experience Introduction to Popular Culture Korean Culture in the World Intermediate Korean II Latin Level IV Language in a Multicultural USA Intro to Mexican American Studies Contemporary Moral Problems Introduction to Philosophy Intermediate Portuguese II Russian Culture in the World Intermediate Russian II Introduction to Popular Culture (proposed) Hispanic Culture in the World Intermediate Spanish II Intro to Women's & Gender Studies
	GLOBAL 2301	Introduction to Global Studies	WOINS 2310	intio to women's a Gender Studies

Senior Elective

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

<u>Civil Engineering Curriculum & Requisites – 2021</u>

Freshman Year, Fall Semester

16 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 1353 Intro to Computer Aided Design Tools in CE – Corequisite: MATH 1421
UNIV 1131 or ENGR 1101 Entrance to Engineering for Transfer Students

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

16 Semester Credit Hours

Pre-Professional Courses:

CE 2311 Statics - Prerequisite: PHYS 1443

CE 2331 Engineering Measurement & Computer Modeling – Prerequisite: CE 1353

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

COMS 2302 Professional & Technical Communication for Scientists & Engineers - Prerequisites: 30

Semester Credit hours completed & ENGL 1301

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

<u>Civil Engineering Curriculum & Requisites – 2021</u>

Junior Year, Fall Semester

16 Semester Credit Hours

Professional Courses:

CE 3210 CE Communications - Prerequisite: COMS 2302

CE 3253 Applications of Computer-Based Design Programs in CE - Prerequisite: CE 1353 & CE 2331

CE 3305 Basic Fluid Mechanics - Prerequisite: CE 2311; Corequisite: MATH 3319

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

CE 3361 Properties & Behavior of CE Materials – Prerequisite: CE 2313 & CHEM 1465

Junior Year, Spring Semester

17 Semester Credit Hours

Professional Courses:

CE 3302 Transportation Engineering - Prerequisite: CE 2331 & CE 3301

CE 3311 Construction Engineering – Prerequisite: IE 2308

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

3131

CE 3131 Environmental Analysis - Corequisite: CE 3334

CE 3342 Introduction to Water Resources - Prerequisite: CE 3301 & CE 3305; Corequisite: CE 3142

CE 3142 Applied Fluid Mechanics Lab - Corequisite: CE 3342

General Education Courses:

POLS 2312 State and Local Government

Senior Year, Fall Semester

15 Semester Credit Hours

Professional Courses:

CE 3328 Water System Design – Prerequisite: CE 3342

CE 3347 Reinforced Concrete Design - Prerequisite: CE 3341

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, one design course and All 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