

Civil Engineering Curriculum & Requisites – 2024-2025

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

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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