Bachelor of Science in Civil Engineering

HCC (Houston City College) to UT Tyler

2026-2027 Catalog

Freshman Year

Fall Semester (HCC)

- ENGL 1301 - Composition I (3 Credit Hours)
- ENGR 1201 - Introduction to Engineering (3 Credit Hours)
- MATH 2413 - Calculus I (4 Credit Hours)
- CHEM 1311/1111 - General Chemistry I Lecture & Lab (4 Credit Hours)
- HIST 1301 - US History I (3 Credit Hours)

Semester Total: 16 Credit Hours

Spring Semester (HCC and UT Tyler)

- ENGR 1304 - Engineering Graphics I (3 Credit Hours)
- MATH 2414 - Calculus II (4 Credit Hours)
- PHYS 2325/2125 - University Physics I Lecture & Lab (4 Credit Hours)
- ENGL 2311 - Technical & Business Writing (3 Credit Hours)
- ENGR 1000 - Thriving in Engineering – **co-enrollment at UT Tyler** (0 Credit Hours)

Semester Total: 14 Credit Hours

Sophomore Year

Fall Semester (HCC)

- CHEM 1412 - General Chemistry II Lecture & Lab (4 Credit Hours)
- ENGR 2301 - Engineering Mechanics - Statics (3 Credit Hours)
    - ECON 2301 - Principles of Macroeconomics (3 Credit Hours)
      OR
    - ECON 2302 - Principles of Microeconomics (3 Credit Hours)
- MATH 2415 - Calculus II (4 Credit Hours)
- ENGR 2304 - Programming for Engineers (3 Credit Hours)

Semester Total: 17 Credit Hours

Spring Semester (HCC)

- SPCH 1315 - Introduction to Public Speaking (3 Credit Hours)
- ENGR 2332 - Mechanics of Materials (3 Credit Hours)
- MATH 2320 - Differential Equations (3 Credit Hours)
- ENGR 2302 - Engineering Mechanics - Dynamics (3 Credit Hours)
- GOVT 2305 - Federal Government (3 Credit Hours)
- Elective - Additional science elective other than Chemistry or Physics (3 Credit Hours)

Semester Total: 18 Credit Hours

Junior Year

Fall Semester (HCC and UT Tyler)

- GOVT 2306 - Introductory Texas Politics (3 Credit Hours) – **co-enrollment at HCC**
- CENG 3434 - Civil Engineering Materials, Codes, and Specifications (4 Credit Hours)
- CENG 3310 - Fluid Mechanics and Hydraulics (3 Credit Hours)
- MATH 3351- Probability and Statistics for Engineers and Scientists (3 Credit Hours)
- CENG 4339 - Civil Engineering Construction Management (3 Credit Hours)

Semester Total: 15 Credit Hours

Spring Semester (HCC and UT Tyler)

- PHIL 2306 - Introduction to Ethics (3 Credit Hours) – **co-enrollment at HCC**
- CENG 3361 - Applied Engineering Hydrology and Hydraulic Design (3 Credit Hours)
- CENG 3371 - Introduction to Environmental Engineering (3 Credit Hours)
- CENG 3336 - Soil Mechanics and Foundation Design (3 Credit Hours)
- CENG 3325 - Structural Analysis (3 Credit Hours)

Semester Total: 18 Credit Hours

Senior Year

Fall Semester (UT Tyler)

- CENG 4311 - Reinforced Concrete and Steel Design (3 Credit Hours)
- CENG 43XX - CE Design Elective 1 (3 Credit Hours)
- CENG 43XX - CE Design Elective 2 (3 Credit Hours)
- CENG 43XX - Enrichment Elective (4370, 4395, or 4399) (3 Credit Hours)
- CENG 4115 - Senior Design I (1 Credit Hour)

Semester Total: 14 Credit Hours

Spring Semester (UT Tyler)

- CENG 4315 - Senior Design II (3 Credit Hours)
- CENG 4341 - Leadership, Professionalism, and Public Policy (3 Credit Hours)
- HIST 1302 - U.S. History II (3 Credit Hours)
- Creative Arts Core Course (3 Credit Hours)
- CENG Approved Technical Elective

Semester Total: 15 Credit Hours

Total Credit Hours: 129

Notes:

- Additional lower-division (CORE) courses can be completed either at HCC or through online enrollment with UT Tyler's main campus.
- The above plan is subject to change based on updates to course offerings at both UT Tyler and HCC.
- For more information or to schedule an appointment with an advisor, please email a copy of your unofficial transcript to: HEC@UTTYLER.EDU