Bachelor of Science in Computer Engineering

HCC (Houston City College) to UT Tyler

2026-2027 Catalog

Freshman Year

Fall Semester (HCC)

- ENGL 1301 - Composition I (3 Credit Hours)
- CHEM 1311 - General Chemistry I (Lecture only) (3 Credit Hours)
- MATH 2413 - Calculus I (4 Credit Hours)
- COSC 1436 - Programming Fundamentals (4 Credit Hours)
- HIST 1301 - US History I (3 Credit Hours)

Semester Total: 17 Credit Hours

Spring Semester (HCC and UT Tyler)

- ENGL 2311 - College Composition II (3 Credit Hours)
- PHYS 2325/2125 - University Physics I Lecture & Lab (4 Credit Hours)
- MATH 2414 - Calculus II (4 Credit Hours)
- COSC 1437 - The Object-Oriented Paradigm (4 Credit Hours)
    - ECON 2301 - Principles of Macroeconomics (3 Credit Hours)
      OR
    - ECON 2302 - Principles of Microeconomics (3 Credit Hours)
- ENGR 1000 - Thriving in Engineering (0 Credit Hours) – **co-enrollment at UT Tyler**

Semester Total: 18 Credit Hours

Sophomore Year

Fall Semester (HCC and UT Tyler)

- MATH 2305 - Discrete Mathematics (3 Credit Hours)
- COSC 2436 - Data Structures and Algorithms (4 Credit Hours)
- PHYS 2326/2126 - University Physics II (4 Credit Hours)
- MATH 3202 - Matrix Methods in Science and Engineering (2 Credit Hours) – **co-enrollment at UT Tyler**
- ENGR 2306/2106 - Digital Systems Design (4 Credit Hours)

Semester Total: 17 Credit Hours

Spring Semester (HCC and UT Tyler)

- ENGR 2305/2105 - Electrical Circuits I/Lab (4 Credit Hours)
- MATH 2320 - Ordinary Differential Equations (3 Credit Hours)
- COSC 2425 - Computer Organization (4 Credit Hours)
- ENGR 2304 - Programming for Engineers (3 Credit Hours) – **co-enrollment at UT Tyler**

Semester Total: 14 Credit Hours

Junior Year

Fall Semester (UT Tyler and HCC)

- MATH 3351 - Probability and Statistics for Engineers and Scientists (3 Credit Hours)
- CMPE 3301 - Foundations of Computer Engineering (3 Credit Hours)
- EENG 3306/3106 - Electrical Circuit Analysis/Lab (4 Credit Hours)
- HIST 1302 – US History II (3 Credit Hours) – **co-enrollment at HCC**
- SPCH 1315 - Introduction to Public Speaking (3 Credit Hours) – **co-enrollment at HCC**

Semester Total: 16 Credit Hours

Spring Semester (UT Tyler and HCC)

- EENG 4307 - Microprocessors and Embedded Systems (3 Credit Hours)
- PHIL 2306 - Introduction to Ethics (3 Credit Hours)
- CMPE 4309 - Digital Electronics (3 Credit Hours)
- CMPE 4311 – Signals and Systems (3 Credit Hours)
- GOVT 2305 - Introduction to American Government (3 Credit Hours) – **co-enrollment at HCC**
- CMPE 4332 - FPGA Design (3 Credit Hours)

Semester Total: 18 Credit Hours

Senior Year

Fall Semester (HCC and UT Tyler)

- GOVT 2306 - Introductory Texas Politics (3 Credit Hours) – **co-enrollment at HCC**
- COSC 3355 - Operating Systems (3 Credit Hours)

- CMPE 4331 - VLSI Design (3 Credit Hours)
- CMPE 4342 – Data Communication and Networking (3 Credit Hours)
- Creative Arts Core Course (3 Credit Hours)

Semester Total: 14 Credit Hours

Spring Semester (UT Tyler)

- CMPE 4315 - Senior Design (3 Credit Hours)
- CMPE 4320 - Computer Architecture (3 Credit Hours)
- CMPE 43XX - Approved 4000 Level Technical Elective (3 Credit Hours)
- CMPE 43XX - Approved 4000 Level Technical Elective (3 Credit Hours)
- CMPE 43XX - Student Enrichment Experience (3 Credit Hours)

Semester Total: 15 Credit Hours

Total Credit Hours: 133

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.