Bachelor of Science in Electrical Engineering

HCC (Houston City College) to UT Tyler

2026-2027 Catalog

Freshman Year

Fall Semester (HCC)

- ENGL 1301 - Composition I (3 Credit Hours)
- CHEM 1311/1111 - General Chemistry I (Lecture and Lab) (4 Credit Hours)
- MATH 2413 - Calculus I (4 Credit Hours)
- COSC 1436 – Programming Fundamentals (4 Credit Hours)
- ENGR 1201 - Introduction to Engineering (2 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)
- HIST 1301 - US History I (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)

  - ECON 2301 - Principles of Macroeconomics (3 Credit Hours)
  - **OR**
  - ECON 2302 - Principles of Microeconomics (3 Credit Hours)
- MATH 2415 - Multivariate Calculus (4 Credit Hours)
- PHYS 2326/2126 - University Physics II (4 Credit Hours)
- GOVT 2305 – Federal Government (3 Credit Hours)
- MATH 3203 – Matrix Methods in Science Engineering (3 Credit Hours) – **co-enrollment at UT Tyler**

Semester Total: 16 Credit Hours

Spring Semester (HCC)

- ENGR 2305/2105 - Electrical Circuits Lecture and Lab (4 Credit Hours)
- MATH 2320 - Ordinary Differential Equations (3 Credit Hours)
- ENGR 2306/2106 - Introduction to Digital Systems Lecture and Lab (3 Credit Hours)
- ENGR 2304 - Programming Languages for Design (4 Credit Hours)
- PHIL 2306 – Introduction to Ethics (3 Credit Hours) – **co-enrollment at UT Tyler**

Semester Total: 17 Credit Hours

Junior Year

Fall Semester (UT Tyler and HCC)

- SPCH 1315 - Introduction to Public Speaking (3 Credit Hours) – **co-enrollment at HCC**
- MATH 3351 - Probability and Statistics for Engineers and Scientists (3 Credit Hours)
- EENG 3303 - Electromagnetic Fields (3 Credit Hours)
- EENG 3305 - Linear Circuits Analysis II (3 Credit Hours)
- EENG 3306/3106 - Electronic Circuit Analysis I Lecture & Lab (4 Credit Hours)

Semester Total: 16 Credit Hours

Spring Semester (UT Tyler)

- EENG 4307 - Microprocessors and Embedded Systems (3 Credit Hours)
- EENG 4308 - Automatic Control Systems (3 Credit Hours)
- EENG 4311 - Signals and Systems (3 Credit Hours)
- EENG 4309/4109 - Electronic Circuits Analysis II Lecture & Lab (3 Credit Hours)
- Engineering or Science Elective

Semester Total: 16 Credit Hours

Senior Year

Fall Semester (UT Tyler and HCC)

- HIST 1302 - US History II (3 Credit Hours) – **co-enrollment at HCC**
- EENG 4115 - Senior Design I (3 Credit Hours)
- EENG 4310/4110 - Electric Power Systems Lecture & Lab (3 Credit Hours)
- EENG 4312 - Communications Theory (3 Credit Hours)

- EENG 43XX - Approved 4000 level Technical Elective (3 Credit Hour)
- EENG 43XX - Approved 4000 level Technical Elective (3 Credit Hour)

Semester Total: 17 Credit Hours

Spring Semester (UT Tyler)

- GOVT 2306 - Introductory Texas Politics (3 Credit Hours)
- EENG 4315 - Senior Design II (3 Credit Hours)
- EENG 43XX - Approved 4000 level Technical Elective (3 Credit Hours)
- Student Enrichment Experience (3 Credit Hours)
- Creative Arts Core Course (3 Credit Hours)

Semester Total: 15 Credit Hours

Total Credit Hours: 132

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.