

ENGINEERING FUNDAMENTALS (CT.EGN)

CERTIFICATE OF ACHIEVEMENT

Program Outcomes: Upon successful completion of this program a student will be able to:

- demonstrate the ability to write computer programs and apply them towards solving engineering problems.
- acquire, develop, and refine the prerequisite mathematics, physics, and chemistry foundational skills to be successful in sophomore level engineering courses such as Statics, Circuit Analysis, or Materials Science and Engineering.
- formulate and demonstrate a plan to appropriately select the courses they will need to transfer to a four-year university.

Recommended electives by major:

Civil/Mechanical Engineering	EGN-5, CHM-1A
Computer Engineering	CSS-1, CSS-2A
Electrical Engineering	CSS-1, CSS2A or CHM-1A

Required Major Courses (17-19 units)

- | | | |
|--------------------------|--|-----|
| <input type="checkbox"/> | MAT-3A – Analytic Geometry and Calculus I | 4.0 |
| <input type="checkbox"/> | MAT-3B – Analytic Geometry and Calculus II | 4.0 |
| <input type="checkbox"/> | PHY-4A – General Physics I/Mechanics | 4.0 |
| <input type="checkbox"/> | EGN-1R – Introduction to Engineering | 2.0 |
| OR | | |
| | EGN-1 – Introduction to Engineering | 3.0 |
| <input type="checkbox"/> | ENG-1A – College Composition and Reading | 3.0 |
| OR | | |
| | ENG-1AX – College Composition and Reading | 4.0 |

Major Electives (Complete 7-9 units)

- | | | |
|--------------------------|--|-----|
| <input type="checkbox"/> | EGN-5 – Programming and Problem Solving in MATLAB | 3.0 |
| <input type="checkbox"/> | CSS-1 – Intro to Computer Science & Programming Fundamentals | 4.0 |
| <input type="checkbox"/> | CSS-2A – Object Oriented Programming | 4.0 |
| <input type="checkbox"/> | CHM-1A – General Chemistry I | 5.0 |

TOTAL: 24-28 UNITS

GAINFUL EMPLOYMENT INFORMATION:

See the certificate program cost and the employment outlook for graduates by clicking the link below:
<http://www.hartnell.edu/gainful-employment-certificate-programs-0>

FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that Hartnell College offers a full array of financial aid programs, federal loan programs, and fee waivers.

<https://www.hartnell.edu/students/fa/net-price-calculator.html>