

# Engineering Fundamentals

**Award**

Engineering Fundamentals A.S. Degree . . . . .60 cr

**Campus Contact For This Program**

Joan Carter, [jcarter@inverhills.edu](mailto:jcarter@inverhills.edu)

**ENGINEERING FUNDAMENTALS  
A.S., 60 CREDITS**

Engineering Core Curriculum . . . . .13-14 cr  
 General Education Curriculum. . . . .46-47 cr

**Purpose**

The A.S. in Engineering Fundamentals prepares students for transfer to a four-year college or university to complete a bachelor’s degree in engineering, including civil, electrical, mechanical, or other engineering disciplines. The program covers courses typically offered in first and second years of an accredited engineering curriculum in the United States. Students are strongly encouraged to become informed of the rules and requirements related to the major department at the four-year college or university to which they plan to transfer. This program also prepares students seeking employment with a strong foundation in engineering principles and practices. Students are advised to work with academic advisors and counselors to complete a course plan.

ENGR 1000 meets the FYE requirement for new, entering, first time college students and/or students with fewer than 12 post-high school transfer credits and is especially encouraged for students interested in Engineering.

**Engineering Core Curriculum** **Choose 13-14 credits**

ENGR 1000 Orientation to Engineering . . . . .	1
ENGR 1110 Introduction to Engineering . . . . .	4
ENGR2000 Thermodynamics . . . . .	4
ENGR 2020 Statics . . . . .	3
ENGR 2024 Mechanics of Materials . . . . .	3
ENGR 2025 Dynamics . . . . .	3
ENGR 2041 Linear Circuits I . . . . .	4

**General Education Curriculum** **46-47 credits**

<input type="checkbox"/> MATH 1133 Calculus I . . . . .	5
<input type="checkbox"/> MATH 1134 Calculus II . . . . .	5
<input type="checkbox"/> MATH 2219 Multivariable Calculus . . . . .	5
<input type="checkbox"/> MATH 2221 Introduction to Linear Algebra . . . . .	3
<input type="checkbox"/> MATH 2222 Introduction to Differential Equations . . . . .	3
<input type="checkbox"/> CHEM 1061 Principles of Chemistry I . . . . .	5
<input type="checkbox"/> PHYS 1081 Calculus Based Physics I . . . . .	5
<input type="checkbox"/> PHYS 1082 Calculus Based Physics II . . . . .	5
<input type="checkbox"/> ENG 1108 Writing and Research Skills . . . . .	4
<input type="checkbox"/> COMM 1100 Interpersonal Communication . . . . .	3
<input type="checkbox"/> MnTC Goal 5, 6, 8, 9 <b>or</b> 10 course . . . . .	3 or 4

**Total Credits** **60**



**InverHills**  
Community College

A MEMBER OF MINNESOTA STATE

***INVERHILLS.EDU • 2024-2025 CATALOG***

---

**INVER HILLS COMMUNITY COLLEGE IS A MEMBER OF MINNESOTA STATE AND AN AFFIRMATIVE ACTION, EQUAL OPPORTUNITY EMPLOYER/EDUCATOR.**

This information is available in an alternate format by calling 651-450-3884 or TTY/Minnesota Relay at 1-800-627-3529.