

Program Information

Students may take the first half of a bachelor's degree in engineering at Anoka-Ramsey Community College. Coursework transfers to four-year baccalaureate engineering programs. Students should plan a program beyond the minimum degree requirements listed in order to transfer into the junior year of their engineering program. For assistance in program planning, or to explore additional transfer options, students should schedule a time to meet with an academic advisor. This degree may transfer in part or in its entirety to baccalaureate institutions. Students should meet with a representative of the transfer institution when planning their program.

Program Goals

By completing this program, students will achieve the following learning goals:

1. Comprehend and apply fundamental engineering concepts;
2. Understand and apply the engineering design process; and
3. Present clear and accurate solutions with respect to mathematics and units of measure.

Developmental Courses

Some students may need preparatory courses in the areas of English, mathematics, or reading. Courses numbered below 1000 will not apply toward this degree.

Completion Requirements

- A minimum of 60 semester credits in courses numbered 1000 or above.
- A minimum cumulative grade point average (GPA) of 2.0 in courses numbered 1000 or above at ARCC.
- Satisfy residency requirements.
- Completion of specific degree requirements.
- To complete your program, please submit the appropriate application found [here](#).
- The requirements of this program are subject to change without notice.

Program Requirements: 21 credits

- | | | |
|--------------------------------------|-------------------------------------------------|---|
| <input type="checkbox"/> CHEM 1061 ♦ | Principles of Chemistry I | 4 |
| <input type="checkbox"/> CSCI 1106 ♦ | Fundamentals of Computer Science I | 4 |
| <input type="checkbox"/> ENGR 1100 | Introduction to Engineering | 2 |
| <input type="checkbox"/> MATH 2210 ♦ | Differential Equations..... | 4 |
| <input type="checkbox"/> MATH 2220 ♦ | Multivariable Calculus and Vector Analysis..... | 5 |

Select one of the following courses:

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|---------------------------------------|-----------------------------------|---|
| <input type="checkbox"/> MATH 2200 ♦ | Linear Algebra | 4 |
| <input type="checkbox"/> MATH 2201 ♦* | Introductory Linear Algebra | 2 |

*Students transferring to the University of Minnesota should take MATH 2201.

Additional Requirements: 9 credits

Select a minimum of 9 credits from the following list of courses. Use the transfer table found on the Web to select courses that meet the transfer institution's requirement. In order to transfer into the junior year, plan a program beyond the minimum degree requirements.

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|------------------------------------------------|------------------------------------------|---|
| <input type="checkbox"/> ENGR 1111 ♦ | Engineering Graphics | 3 |
| <input type="checkbox"/> ENGR 1200 ♦ | Engineering Design | 3 |
| <input type="checkbox"/> ENGR 1201 ♦ | Directed Research in Engineering..... | 2 |
| <input type="checkbox"/> ENGR 2218 ♦ | Digital Logic..... | 4 |
| OR | | |
| <input type="checkbox"/> ENGR 2221 ♦ | Digital Fundamentals | 2 |
| <input type="checkbox"/> ENGR 2219 ♦ | Linear Circuits I | 4 |
| <input type="checkbox"/> ENGR 2240 ♦ | Thermodynamics | 3 |
| <input type="checkbox"/> ENGR 2241 ♦ | Statics | 3 |
| <input type="checkbox"/> ENGR 2242 ♦ | Dynamics | 3 |
| <input type="checkbox"/> ENGR 2243 ♦ | Mechanics of Materials | 3 |
| <input type="checkbox"/> CHEM 1062 ♦ | Principles of Chemistry II..... | 4 |
| <input type="checkbox"/> CHEM 2061 ♦ | Organic Chemistry I..... | 5 |
| <input type="checkbox"/> CHEM 2062 ♦ | Organic Chemistry II | 5 |
| <input type="checkbox"/> CSCI 1107 ♦ | Fundamentals of Computer Science II..... | 4 |
| <input type="checkbox"/> CSCI 2253 ♦ | Assembly Language Programming | 4 |
| <input type="checkbox"/> MATH 2100/CSCI 2100 ♦ | Discrete Mathematics | 4 |

General Education/MnTC Requirements: 30 credits

Students must complete at least 30 credits from the Minnesota Transfer Curriculum (MnTC) including all courses listed. You must complete at least one course in six of the ten goal areas. One course may satisfy more than one area, but the course credits may be counted only once.

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|----------------------------------------------------------------|---------|
| <input type="checkbox"/> 1. Communication | |
| <input type="checkbox"/> ENGL 1120 ♦ OR ENGL 1121 ♦ | 4 |
| <input type="checkbox"/> 2. Critical Thinking | |
| <input type="checkbox"/> 3. Natural Science | |
| <input type="checkbox"/> PHYS 1327 ♦ | 6 |
| <input type="checkbox"/> PHYS 1328 ♦ | 6 |
| <input type="checkbox"/> 4. Mathematical/Logical Reasoning | |
| <input type="checkbox"/> MATH 1400 ♦ | 5 |
| <input type="checkbox"/> MATH 1401 ♦ | 5 |
| <input type="checkbox"/> 5. History/Social/Behavioral Sciences | |
| <input type="checkbox"/> 6. Humanities and Fine Arts | |
| <input type="checkbox"/> 7. Human Diversity | |
| <input type="checkbox"/> 8. Global Perspective | |
| <input type="checkbox"/> 9. Ethical/Civic Responsibility | |
| <input type="checkbox"/> 10. People and the Environment | |

♦ Course has prerequisite - see course schedule or catalog description.

^ Course requires Instructor permission.

NOTE: You are encouraged to contact an academic advisor at 763-433-1230 for course planning assistance and information about transfer credit evaluation and transfer options.