

**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 receive your diploma, you must apply to graduate.
- The requirements of this program are subject to change without notice.

**Program Requirements: 21 credits**

- ☐ CHEM 1061 ♦ Principles of Chemistry I ..... 4
  - ☐ CSCI 1106 ♦ Fundamentals of Computer Science I ..... 4
  - ☐ ENGR 1100 Introduction to Engineering ..... 2
  - ☐ MATH 2210 ♦ Differential Equations..... 4
  - ☐ MATH 2220 ♦ Multivariable Calculus and Vector Analysis..... 5
- Select one of the following courses:
- ☐ MATH 2200 ♦ Linear Algebra ..... 4
  - ☐ 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.

- ☐ ENGR 1111 ♦ Engineering Graphics ..... 3
  - ☐ ENGR 2218 ♦ Digital Logic..... 4
- OR**
- ☐ ENGR 2221 ♦ Digital Fundamentals ..... 2
  - ☐ ENGR 2219 ♦ Linear Circuits I ..... 4
  - ☐ ENGR 2240 ♦ Thermodynamics ..... 3
  - ☐ ENGR 2241 ♦ Statics ..... 3
  - ☐ ENGR 2242 ♦ Dynamics ..... 3
  - ☐ ENGR 2243 ♦ Mechanics of Materials ..... 3
  - ☐ CHEM 1062 ♦ Principles of Chemistry II..... 4
  - ☐ CHEM 2061 ♦ Organic Chemistry I..... 5
  - ☐ CHEM 2062 ♦ Organic Chemistry II ..... 5
  - ☐ CSCI 1107 ♦ Fundamentals of Computer Science II..... 4
  - ☐ CSCI 2253 ♦ Assembly Language Programming ..... 4
  - ☐ MATH 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.

- ☐ 1. Communication
  - ☐ ENGL 1120 ♦ **OR** ENGL 1121 ♦ ..... 4
- ☐ 2. Critical Thinking
- ☐ 3. Natural Science
  - ☐ PHYS 1327 ♦ ..... 6
  - ☐ PHYS 1328 ♦ ..... 6
- ☐ 4. Mathematical/Logical Reasoning
  - ☐ MATH 1400 ♦ ..... 5
  - ☐ MATH 1401 ♦ ..... 5
- ☐ 5. History/Social/Behavioral Sciences
- ☐ 6. Humanities and Fine Arts
- ☐ 7. Human Diversity
- ☐ 8. Global Perspective
- ☐ 9. Ethical/Civic Responsibility
- ☐ 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.