Computer Science
Associate of Science (AS) Degree

Program Requirements.....................19
Additional Requirements..................11
General Education/MnTC..............30
Total Credits 60

Program Information

This degree program targets a broad range of students interested in careers in Information Technology. 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. The program shares curriculum with related courses from Business and Computer Networking to provide graduates with a diverse skill set.

Program Goals

By completing this program, students will achieve the following learning goals:
1. Write and implement algorithms using a programming language of their choice to solve any problem;
2. Write object-oriented programs;
3. Implement data structures in writing complex programs;
4. Be fluent in two or more programming languages;
5. Understand ethical and moral issues as related to Computer Science applications;
6. Understand the computer's architecture as it relates to Computer Science; and
7. Have a strong base to become a life-long learner in the field of Computer Science.

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. See page 27.
- A minimum grade of C must be earned in all program requirements.
- All program requirements must be completed at ARCC.
- Courses within the 30 credit program and additional requirements must be completed within three years. Student may petition to extend the window beyond the three years.
- 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.

Transfer Note:
Students intending to transfer should choose the following electives: MATH 1201 and MATH 1400.

Program Requirements: 19 credits

- ☐ CSCI 1101♦ Introduction to Computer Science and Problem Solving 3
- ☐ CSCI 1106♦ Fundamentals of Computer Science I 4
- ☐ CSCI 1107♦ Fundamentals of Computer Science II..................4
- ☐ CSCI 2100♦ Discrete Mathematics ....4 (*Cross-listed as MATH 2100*)
- ☐ CSCI 2253♦ Assembly Language Programming 4

Additional Requirements: 11 credits

Select courses from the following to fulfill the 30-credit requirement:
- ☐ CSCI 1115 Visual Basic Programming 3
- ☐ CSCI 1125♦ Object-Oriented Programming Using Java.............3
- ☐ CSCI 1155♦ Introduction to Functional Language Programming 1
- ☐ CNET 2101 Introduction to Networks (CCNA I) 3
- ☐ ENGR 2218♦ Digital Logic..4
- ☐ MATH 1201♦ College Algebra II and Trigonometry....................4
- ☐ MATH 1210♦ Pre-Calculus 5
- ☐ MATH 1400♦ Calculus I 5
- ☐ MATH 1401♦ Calculus II 5

General Education/MnTC Requirements: 30 credits

Complete at least 30 credits in courses 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 goal area, but the course credits may be counted only once. Students intending to transfer to a 4-year institution should complete all ten goal areas.
- ☐ 1. Communication
  - ☐ ENGL 1120♦ *OR* ENGL 1121♦ 4
  - ☐ CMST 1110* *OR* CMST 2220 3

*Students may take CMST 2215 Public Speaking in place of CMST 1110 (required by Minnesota State University-Mankato).
- ☐ 2. Critical Thinking
- ☐ 3. Natural Science
- ☐ 4. Mathematical/Logical Reasoning
  - ☐ MATH 1200, 1201, 1210, 1400 *OR* 1401(all ♦)..............3
- ☐ 5. History/Social/Behavioral Sciences
- ☐ 6. Humanities/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.

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Program Sequence:

The sequence that follows is suggested for full-time students. Part-time students will need more time to complete this program; many courses are offered in the evening.

1st YEAR	Fall Semester	Spring Semester
	CSCI 1101 4	CSCI 1106 4
	MATH 1200 3	CMST 1110 or 2220 3
	ENGL 1120/1121 4	Gen. Ed. or Electives.9-10
	Gen. Ed. or Electives 4-5	**TOTAL 16-17**
	TOTAL 15-16	

2nd YEAR	Fall Semester	Spring Semester
	CSCI 2253 4	CSCI 1107 4
	Elective 3-4	MATH 2100 4
	Gen. Ed. or Electives ... 8	Gen. Ed. or Electives 3-6
	TOTAL 15-16	**TOTAL 11-14**

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

^ *Course requires Instructor permission.*

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