

Core Requirements	22-27
Program Electives	<u>3-8</u>
Total	30

Computer Programming Certificate Program 2008-2009

Program Information: This certificate program targets students interested in careers in Information Technology. It is designed for holders of an AA, AS and/or baccalaureate degree who have an interest in a career change or job enhancement. The program offers two tracks for students based on readiness, transfer and/or employment plans. The program shares curriculum with related courses from Business and Computer Networking to provide graduates with a diverse skill set. For additional information about our computer science program, visit our Web site at <http://www.AnokaRamsey.edu>. **This certificate is currently being offered on a two-year, part-time basis.**

Program Goals: By completing this certificate, students will achieve the following learning goals: 1) be fluent in two or more programming languages; 2) write computer programs to solve any type of problem; 3) understand ethical and moral issues as related to Computer Science applications; 4) write Windows-based programs; 5) write Graphical User Interface programs that are platform independent; and, 6) write Object-Oriented programs.

Program Admission: To apply for admission to one of the Computer Science Programs, submit the *Application for Computer Science Programs* to the Records and Registration Office. Applications are available in Counseling and Advising Services or the Records and Registration Offices on either campus. Admission to the program is not required to take CSCI 1101 or CSCI 1115.

Developmental Courses: Some students may need preparatory courses in the areas of mathematics, or typing/ keyboarding. Courses numbered below 1000 will not apply toward this certificate program.

<p>Program Core Requirements 22-27 credits</p> <p>CSCI 1101♦ Introduction to Computer Science and Problem Solving 3</p> <p>CSCI 1102/1103♦ Introduction to Programming I, II (6 cr) OR</p> <p>CSCI 1106♦ Fundamentals of Computer Science I (4 cr) 4-6</p> <p>CSCI 1107♦ Fundamentals of Computer Science II 4</p> <p>CSCI 1115♦ Visual Basic Programming 3</p> <p>CSCI 1125♦ Java Programming 3</p> <p>CSCI 2253♦ Assembly Language Programming 4</p> <p>MATH 2100* Discrete Mathematics 4</p>	<p>Notes: (1) A minimum cumulative grade point average (GPA) of 2.0 in courses numbered 1000 or above at ARCC. (2) A minimum grade of C must be earned in all Program Core requirements. (3) All Program Core requirements must be completed at Anoka-Ramsey Community College. (4) Courses must be completed within 3 years. Students may petition to extend the window beyond the 3 years.</p>
<p>Additional Career Requirements 3-8 credits</p> <p>Select courses from the following to fulfill the 30-credit requirement:</p> <p>BUS 1119♦ Introduction to Relational Databases 3</p> <p>BUS 1180♦ Developing Web Pages 3</p> <p>CNET 2101 Data Telecommunications & Computer Networks 3</p>	<p>Students may take two tracks through the program:</p> <p>Track 1: For students having no computer science and limited math background. (CSCI 1101, 1102, and 1103)</p> <p>Track 2 (accelerated): For students having some computer science and a pre-algebra background. (CSCI 1106 and 1107)</p> <p>♦ Course has a prerequisite.</p>

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.

		<u>First Year</u>				<u>Second Year</u>	
Fall Semester		Spring Semester		Fall Semester		Spring Semester	
CSCI 1101, 1102 or 1106	3-4	CSCI 1102, 1103, or 1107	3-4	CSCI 2253		CSCI 1107 (track 1)	4
Electives	<u>4-5</u>	CSCI 1115	<u>3</u>	MATH 2100		CSCI 1125	3
TOTAL	8	TOTAL	6-7	TOTAL		Electives	<u>3</u>
						TOTAL	6-7

You are encouraged to contact a counselor or an advisor, Cambridge Campus 763.433.1840 or Coon Rapids Campus 763.433.1230, for course planning assistance and information about transfer credit evaluation.

NOTE: The requirements of this program are subject to change without notice.