

**Minnesota State Colleges and Universities  
Metropolitan State University  
Anoka-Ramsey Community College  
Cooperative Agreement Regarding  
the Computer Information Systems Major  
and the AS in Computer Science/Certificate in Computer Programming**

This agreement is entered into between Metropolitan State University and Anoka-Ramsey Community College for the purpose of facilitating the transfer of credits from Anoka-Ramsey Community College to Metropolitan State for students desiring to earn a baccalaureate degree in Computer Information Systems.

**Program Articulation:**

The following Anoka-Ramsey Community College courses may be used to partially fulfill the requirements of the Metropolitan State University Computer Information Systems degree plan as shown:

| <b>Metropolitan State University Requirements</b>                             | <b>Applicable Anoka-Ramsey CC Course(s)</b>                                                                                                                                                                |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ICS 140 Programming Fundamentals                                              | CSCI 1102 Introduction to Programming I (3 cr)                                                                                                                                                             |
| ICS 141 Programming with Objects                                              | CSCI 1103 Introduction to Programming II (3 cr) or CSCI 1106 Fundamentals of Computer Science I (4 cr)                                                                                                     |
| ICS 240 Programming with Elementary Data Structures                           | CSCI 1107 Fundamentals of Computer Science (4 cr)                                                                                                                                                          |
| Competence in Java                                                            | CSCI 1125 Java Programming                                                                                                                                                                                 |
| (Math 115 College Algebra and Math 116 Trigonometry) or Math 120 Pre-Calculus | (Math 1200 College Algebra (3 cr) and Math 1201 Trigonometry (xx cr)) or Math 1210 Pre-Calculus (xx cr)                                                                                                    |
| Math 215 Discrete Mathematics                                                 | Math 2100 Discrete Mathematics (4 cr)                                                                                                                                                                      |
| One course in probability, statistics or calculus                             | Math 1400 Calculus 1 (5 cr) or Math 2230 Probability and Statistics                                                                                                                                        |
| Up to six credits of electives                                                | CNET 2101 Data Telecommunications and Computer Networks (3 cr)<br>ENGR 2218 Digital Logic (4 cr)<br>Math 210 Differential Equations (xx cr)<br>Math 2220 Multivariate Calculus and Vector Analysis (xx cr) |

Students at Anoka-Ramsey Community College may apply their general education courses towards Metropolitan State University's general education requirements.

**Duration of the Agreement:**

This agreement becomes effective immediately and remains in effect until terminated by either party. It may be terminated or amended for succeeding academic years by either institution on or before June 30 of each year.

**Persons Responsible and Evaluation of the Agreement:**

The Dean of the College of Arts and Sciences at Metropolitan State University and the Dean of Academic Affairs at Anoka-Ramsey Community College will be responsible for implementing this agreement and overseeing a regular evaluation of its outcomes.

**Metropolitan State University**

**Anoka-Ramsey Community College**

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|--------------------------------------------------------------------|------|---------------------------------------------|------|
| _____<br>President                                                 | Date | _____<br>President                          | Date |
| _____<br>Vice President for Academic Affairs                       | Date | _____<br>Vice President of Academic Affairs | Date |
| _____<br>Dean, College of Arts and Sciences                        | Date |                                             |      |
| _____<br>Chair, Department of Information and<br>Computer Sciences | Date |                                             |      |