



THE BOROUGH OF MANHATTAN COMMUNITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK
ARTICULATION AGREEMENT FORM

A. SENDING AND RECEIVING INSTITUTIONS

Sending College: Borough of Manhattan Community College
Department: Computer Information Systems
Program: Computer Science
Degree: Associate in Science (A.S.)

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Receiving College: Mercy College  
Department: School of Liberal Arts  
Program: Computer Science  
Degree: Bachelor of Science (B.S.)

**B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM**

Students must have completed an associate's degree with an overall GPA of 2.0.

Only courses with grades of C or better may be applied to the major or major prerequisite courses unless otherwise stated. Grades of C-, D+ and D may be used to fulfill General Education or elective requirements only if those courses were part of the student's earned associate degree program.

**Total transfer credits granted toward the Baccalaureate degree:**

A total of 90 credits are accepted in transfer. Only 75 may be from a two year institution. CLEP, DANTEs and ACE equivalent credits (military transcript) are accepted in transfer. One half of the major requirements must be completed at Mercy College. Permission to transfer in any additional major courses after the student's final transcript(s) are evaluated must be approved by the Dean of the School for that student's major.

Total transfer credits granted toward the baccalaureate degree: 60

Total additional credits required at the senior college to complete baccalaureate degree: 60

## C. COURSE TO COURSE EQUIVALENCIES AND TRANSFER CREDIT AWARDED

Borough of Manhattan Community College graduates who complete the Associate in Arts (A.S.) degree in Computer Science will receive 60 credits toward the Bachelors of Science (B.S.) degree in Computer Science at Mercy College. Beginning fall 2013, students who enter the College will follow the Pathways curriculum for Computer Science.

### Current Computer Science Curriculum

| <b>General Requirements</b>                    |           |
|------------------------------------------------|-----------|
| ENG 101 – English Composition I                | 3         |
| ENG 201 – English Composition II               | 3         |
| SPE 100 – Fundamentals of Speech               | 3         |
| Music or Art Course                            | 1         |
| Social Science                                 | 3         |
| MAT 200 – Discrete Mathematics                 | 4         |
| MAT 206 – Precalculus                          | 4         |
| MAT 301 – Analytic Geometry & Calculus I       | 4         |
| MAT 302 – Analytic Geometry & Calculus II      | 4         |
| PHY 215 – University Physics I                 | 4         |
| PHY 225 – University Physics II                | 4         |
| <b>Total General Credits</b>                   | <b>37</b> |
| <b>Curriculum Requirements</b>                 |           |
| CSC 110 – Computer Programming I               | 4         |
| CSC 210 – Computer Programming II              | 4         |
| CSC 230 – Discrete Structures                  | 3         |
| CSC 330 – Data Structures I                    | 3         |
| CSC 430 – Data Structures II                   | 3         |
| CSC 310 – Assembler Language & Architecture I  | 3         |
| CSC 410 – Assembler Language & Architecture II | 3         |
| <b>Total Curriculum Credits</b>                | <b>23</b> |
| <b>Total Program Credits</b>                   | <b>60</b> |

### Pathways Computer Science Curriculum, AS

| <b>Common Core</b>                                 |           |
|----------------------------------------------------|-----------|
| <b>Required Common Core</b>                        |           |
| English Composition                                | 6         |
| Mathematical & Quantitative Reasoning <sup>1</sup> | 3         |
| Life & Physical Sciences <sup>2</sup>              | 3         |
| <b>Total Required Common Core</b>                  | <b>12</b> |
| <b>Flexible Core<sup>3</sup></b>                   |           |
| Creative Expression <sup>4</sup>                   | 3         |
| World Culture & Global Issues                      | 3         |
| U.S. Experience in Its Diversity                   | 3         |
| Individual & Society                               | 3         |
| Scientific World <sup>5</sup>                      | 6         |
| <b>Total Flexible Core</b>                         | <b>18</b> |
| <b>Total Common Core</b>                           | <b>30</b> |
| <b>Curriculum Requirements</b>                     |           |
| CSC 210 – Computer Programming II                  | 4         |
| CSC 230 – Discrete Structures                      | 3         |
| CSC 330 – Data Structures I                        | 3         |
| CSC 430 – Data Structures II                       | 3         |
| CSC 310 – Assembler Language & Architecture I      | 3         |
| CSC 410 – Assembler Language & Architecture II     | 3         |
| MAT 302 – Analytic Geometry & Calculus II          | 4         |
| General Elective <sup>6</sup>                      | 7         |
| <b>Total Curriculum Credits</b>                    | <b>30</b> |
| <b>Total Program Credits</b>                       | <b>60</b> |

<sup>1</sup> Students are required to take MAT 301.

<sup>2</sup> Students are required to take PHY 215.

<sup>3</sup> No more than two courses in any discipline or interdisciplinary field can be used to satisfy Flexible Core requirements.

<sup>4</sup> Students are required to take SPE 100.

<sup>5</sup> Students are required to take CSC 110 and PHY 225.

<sup>6</sup> These credits can be satisfied by taking STEM variants in the Common Core

**SENIOR COLLEGE UPPER DIVISION COURSES REMAINING FOR BACCALAUREATE DEGREE**

| <b>Course and Title</b>                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Credits</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <i>General Education (Liberal arts, Core, Distribution) and other Required Courses</i>                                                                                                                                                                                                                                                                                                                                            |                |
| JRSM 301 Junior Seminar                                                                                                                                                                                                                                                                                                                                                                                                           | 3              |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>3</b>       |
| <i>Computer Science Major (47 credits): Specific Program Requirements (38 Credits)</i>                                                                                                                                                                                                                                                                                                                                            |                |
| CISC 257 Computer Network I                                                                                                                                                                                                                                                                                                                                                                                                       | 3              |
| CISC 271 Programming in C++                                                                                                                                                                                                                                                                                                                                                                                                       | 3              |
| CISC 335 Computer Network II                                                                                                                                                                                                                                                                                                                                                                                                      | 3              |
| CISC 341 Computer Architecture                                                                                                                                                                                                                                                                                                                                                                                                    | 3              |
| CISC 371 Software Engineering I: Principles                                                                                                                                                                                                                                                                                                                                                                                       | 3              |
| CISC 421 Operating Systems                                                                                                                                                                                                                                                                                                                                                                                                        | 3              |
| CISC 471 Software Engineering II: Senior Capstone Project                                                                                                                                                                                                                                                                                                                                                                         | 3              |
| MATH 350 Probability: Theories and Application                                                                                                                                                                                                                                                                                                                                                                                    | 3              |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>24</b>      |
| <i>Specialization (6 credits): Choose 2 courses from:</i>                                                                                                                                                                                                                                                                                                                                                                         |                |
| CISC 301 Information Systems within Organizations                                                                                                                                                                                                                                                                                                                                                                                 | 3              |
| CISC 327 Computer Graphics                                                                                                                                                                                                                                                                                                                                                                                                        | 3              |
| CISC 337 Database Management Systems                                                                                                                                                                                                                                                                                                                                                                                              | 3              |
| CISC 339 Artificial Intelligence                                                                                                                                                                                                                                                                                                                                                                                                  | 3              |
| CISC 359 Website Administration                                                                                                                                                                                                                                                                                                                                                                                                   | 3              |
| CISC 385 Cryptography and Computer Security                                                                                                                                                                                                                                                                                                                                                                                       | 3              |
| CISC395 Special Topics in Computer Information Science                                                                                                                                                                                                                                                                                                                                                                            | 3              |
| CISC 397 Independent Study in Computer Information Science                                                                                                                                                                                                                                                                                                                                                                        | 3              |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>6</b>       |
| <i>Choose one course from: (3credits)</i>                                                                                                                                                                                                                                                                                                                                                                                         |                |
| MATH 307, 315, 329, 351, 362, 417<br>IASP 310 Information Assurance and Control Systems: Protection<br>IASP 320 Information Assurance and Control Systems: Recovery<br>IASP 321 (Linux Administration); IASP 330 (Disaster Recovery/Business Continuity);<br>IASP 430 (Forensic/electronic Discovery); IASP 440 (System Security); IASP 460<br>(Wireless Network and Security); IASP 475 (Senior project in Information Security) | 3              |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>3</b>       |
| <b>Open Electives</b>                                                                                                                                                                                                                                                                                                                                                                                                             |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>24</b>      |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>24</b>      |
| <b>Total upper division credits required</b>                                                                                                                                                                                                                                                                                                                                                                                      | <b>60</b>      |
| <b>Total credits transferred from BMCC</b>                                                                                                                                                                                                                                                                                                                                                                                        | <b>60</b>      |
| <b>Total credits required for the B.S. degree in Computer Science</b>                                                                                                                                                                                                                                                                                                                                                             | <b>120</b>     |

## **E. ARTICULATION AGREEMENT FOLLOW-UP PROCEDURES**

### **1. Procedures for reviewing, updating, modifying or terminating agreement:**

When either of the degree programs involved in this agreement undergoes a change, the agreement will be reviewed and revised accordingly by faculty from each institution's respective departments, selected by their Chairpersons.

### **2. Procedures for evaluating agreement, i.e., tracking the number of students who transfer under the articulation agreement and their success:**

Each semester Mercy College will provide the Borough of Manhattan Community College the following information: a) the number of BMCC students who applied to the program; b) the number of BMCC students who were accepted into the program; c) and the number of BMCC students who enrolled; d) the aggregate GPA of these enrolled students.

### **3. Sending and receiving college procedures for publicizing agreement, e.g., college catalogs, transfer advisers, Websites, etc.:**

This articulation agreement will be publicizing on the Borough of Manhattan Community College's website, and Mercy College website. Transfer advisors at BMCC will promote this agreement with eligible students.

## **F. Additional Information (e.g., financial aid, transfer scholarships)**

Transfer students are eligible to apply for financial aid that is normally available to other junior class students.

Scholarships from \$2000 to \$5000 per year are awarded to transfer students with associate degrees on the basis of previous academic performance of at least a 3.0 cumulative GPA.

A scholarship for members of Phi Theta Kappa is also available.