## **Articulation Agreement**

Agreement initiated by: City University of New York, School of Professional Studies

<u>Sending College</u>: Queensborough Community College

Program: Computer Information Systems

Degree: A.A.S.

<u>Receiving College</u>: CUNY School of Professional Studies (SPS)

Department: Computer Information Systems and Analytics

Program: Information Systems

Degree: B.S.

### ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

This articulation agreement puts in a place a "2+2" arrangement between the programs identified above. Students who complete their A.A.S. degree at QCC (referred to as a "two-year degree"), and then continue full-time in SPS's BSIS program, can complete their B.S. in Information Systems (general IS track) within two years. The acquired skills and knowledge gained from the culmination of courses required for the A.A.S. degree programs will be deemed to have fulfilled the General Education Pathways requirement for SPS (with the exception of the College Options courses) as well as a some major and elective courses.

Graduates of the A.A.S., Computer Information Systems degree from QCC will qualify for admission into the SPS Bachelor of Science degree in Information Systems if they have maintained a minimum overall GPA of 2.5 and are in good standing at QCC. Applicants will follow the standard admissions process, which includes completing a transfer application, SPS's supplemental application form measuring readiness for online education, a statement of interest in the information systems program, and a personal interview.

QCC graduates will be awarded 60 transfer credits toward the bachelor's degree based on the current (fall 2014) Information Systems curriculum. Should that curriculum change, it will be necessary to reevaluate the transfer agreement. Courses in math and English require a grade of C or better for transfer in accordance with current University policy. In addition, all courses in the major require a grade of C or better for transfer. Upon matriculation into the B.S. program in Information Systems, students will be required to complete the School of Professional Studies Online Orientation Program and must fulfill elective and major requirements specified on the following pages.

Total transfer credits granted toward the baccalaureate degree: <u>60.</u>

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

# **COURSE OUTLINE AND TRANSFER REQUIREMENTS:**

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

### **Prerequisites and Major Courses**

The interdisciplinary curriculum includes General Education courses and a 60-credit major, including concentrations, allowing students to define an area of special interest in the broader field of Information Systems. General Education requirements will incorporate the principles outlined by CUNY's Pathways to Degree Completion initiative, which were designed to ensure transferability as well as a broad-based educational foundation.

To meet requirements, students must complete a total of 120 credits, outlined in the tables 3 - 6 below. These table list the courses required for completing the B.S. in Information Systems.

Table 1: Queensborough Community College - A.A.S., Computer Information Systems (CIS) Requirements

| Course no.           | Course title  | Common core category          | Credits |
|----------------------|---|-------------------------------|---------|
| Common core req      | uirements   |                               |         |
| EN-101               | English Composition I                                   | I.A                           | 3       |
| EN-102               | English Composition II                                  | I.A                           | 3       |
| MA-260 or            | Pre-calculus & Elements of Calculus for Bus.            | I.B                           | 4       |
|                      | Students or   |                               |         |
| MA-321 or            | Mathematics in Contemporary Society                     |                               |         |
|                      | or  |                               |         |
| MA-128               | Calculus for Technical and Business Students            |                               |         |
| Laboratory science   |   | I.C                           | 3-4     |
| ECON-101 or          | Introduction to Macroeconomics                          | I.D                           | 3       |
| ECON-102             | or  |                               |         |
|                      | Introduction to Microeconomics                          |                               |         |
| Humanities elective  |   | II.A/II.B/II.C/II.D/II.E      | 3       |
| Social Sciences or   | History elective (HI-100 series)                        | II.A/II/B/II.D                | 3       |
|                      |   | Subtotal                      | 22-23   |
| Major requirement    | s   | •                             |         |
| BU-101               | Principles of Accounting I                              |                               | 4       |
| BU-201               | Business Organization and Management                    |                               | 3       |
| BU-203               | Principles of Statistics                                |                               | 3       |
| BU-500               | Introduction to Microcomputer Applications              |                               | 3       |
| BU-509               | Projects in Data Processing                             |                               |         |
| BU-520               | Introduction to Computer Programming for Business       | 3                             | 3       |
|                      | , , ,   | Subtotal                      | 19      |
| Track A              | Computer Prog   | ramming                       |         |
| BU-502               | COBOL Programming                                       |                               | 3       |
| BU-504               | Systems Analysis and Design with Business Applications  |                               |         |
| BU-521               | Business Programming with Objects                       |                               |         |
| BU-522               | Business Programming with Visual Languages              |                               |         |
| BU-532               | Microcomputer Operating Systems and Utility Software    |                               |         |
|                      | Business elective                                       |                               | 2-3     |
|                      |   | Subtotal                      | 18-19   |
| Track B              | Microcomputer Applic                                    | ations Software               |         |
| BU-508               | Database Management Systems                             |                               | 3       |
| BU-530               | Spreadsheet Applications                                |                               | 3       |
| BU-532               | Microcomputer Operating Systems and Utility Softw       | are                           | 3       |
| BU-534               | Local Area Network Management                           |                               | 3       |
| BU-859               | Desktop Publishing (Software)                           |                               | 3       |
|                      | Business elective                                       |                               | 3-4     |
|                      |   | Subtotal                      | 18-19   |
| Additional major r   | equirements   |                               |         |
|                      | purse (STEM variant in common core satisfies this requ  | uirement): choose from BI-132 | 0-1     |
|                      | H-111, CH-121; ET-842; or PH-112.                       |                               | •       |
| , ,,,                | , - , - , - , - , - , - , - , - , - , -                 | Subtotal                      | 0-1     |
|                      |   | Total credits required        | 60      |
| All abodants         | annulata tura (O) IVII danimun ta dalara a ta Callella  |                               |         |
| All Students must co | omplete two (2) WI designated classes to fulfill degree | requirements.                 |         |

Table 2: School of Professional Studies – B.S. in Computer Information Systems Requirements

| GENERAL EDUCATION   |           |   | 36  |  |
|---|-----------|---|-----|--|
| English Composition                                       |           |   | 6   |  |
| Mathematical and Quantitative Reasoning                   |           |   |     |  |
| Life and Physical Sciences                                |           |   |     |  |
| World Cultures and Global Issues                          |           |   |     |  |
| U.S. Experience in its Diversity                          |           |   |     |  |
| Creative Expression                                       |           |   | 3   |  |
| Individual and Society                                    |           |   | 3   |  |
| Scientific World  |           |   | 3   |  |
| TBD by student  |           |   | 3   |  |
| COM 110 - Digital Literacy                                |           |   | 3   |  |
| Choice among QUAN 201, COM 210                            | or PLA 30 | 00  | 3   |  |
| REQUIRED MAJOR COURES                                     |           |   | 39  |  |
| Foundations of Information Systems                        |           |   | 3   |  |
| Networks and Business Data Commu                          | nication  |   | 3   |  |
| Introduction to Statistics                                | mounton   |   | 3   |  |
| Computer and Network Security                             |           |   | 3   |  |
| Software Application Programming 1                        |           |   | 3   |  |
| Software Application Programming 2                        |           |   | 3   |  |
| Data Acquisition and Management                           |           |   | 3   |  |
| Database Architecture and Programm                        | nina      |   | 3   |  |
| Systems Analysis and Design                               | iiig      |   | 3   |  |
| IS Strategy, Management, and Acquis                       | sition    |   | 3   |  |
| <u> </u>  |           |   | 3   |  |
| Enterprise Architectures and Applicati                    | 10115     |   | 3   |  |
| Project Management  |           |   | 3   |  |
| IS Capstone TRACK REQUIREMENT - Select eith               | or CIC or | MIC   | 24  |  |
| •   |           | Management Information Systems                | 24  |  |
| General Information Systems IT Infrastructure and Support | 3         | Business Process Design and Workflow Analysis | 3   |  |
| IS Electives  | 9         | Introduction to Data Science                  | 3   |  |
|   | 12        |   | 3   |  |
| Context Courses   | 1Z        | Discrete Mathematics and Linear Algebra       | 3   |  |
|   |           | E-Commerce for Information Systems            |     |  |
|   |           | Managerial Accounting                         | 3   |  |
|   |           | Logistics and Supply Chain Management         | J   |  |
|   |           | Principles of Marketing                       | 3   |  |
| FLECTIVES*  |           | Strategic Human Resource Management           | 3   |  |
| Communication   |           |   | 21  |  |
| Computer Forensics  |           |   | 3   |  |
| Geographic Information Systems                            |           |   | 3   |  |
| Health Information Management Systems                     |           |   | 3   |  |
| Human-Computer Interaction                                |           |   | 3   |  |
| IT Infrastructure and Support                             |           |   | 3   |  |
| Principles of Informatics                                 |           |   |     |  |
| Social Media  |           |   |     |  |
| Universal Design and Assistive Technology                 |           |   |     |  |
| Web Programming and Mobile App Development                |           |   |     |  |
| IS Special Topics   |           |   |     |  |
| IS Independent Study                                      |           |   | 1-3 |  |
| IS Internship   |           |   | 1-3 |  |
|   |           | TOTAL CREDITS                                 | 120 |  |

<sup>\*</sup>All undergraduate courses offered through the SPS may be taken to fulfill the free elective requirement. In addition, courses from outside of the SPS are eligible as well, but must adhere to the policies and procedures for transfer credit set forth by the SPS.

Table 3: Course Equivalencies - Microcomputer Applications Software to General Information Systems Track

| Course   | raise Equivalencies - inicrocomputer Applica                     | QCC     | tware to deficial information dystems fract | SPS     |
|----------|--|---------|---|---------|
| Туре     | QCC Course   | Credits | SPS Course                                  | Credits |
| Gen.Ed.  | ECON 101 or ECON 101 (I.D.)                                      | 3       |   |         |
| Gen.Ed.  | English (I.A.)   | 6       |   |         |
| Gen.Ed.  | Humanities elective (II.A/II.B/II.C/II.D/II.E)                   | 3       |   |         |
| Gen.Ed.  | Laboratory science (I.C.)  | 4       |   |         |
| Gen.Ed.  | Math (I.B.)  | 4       |   |         |
| Gen.Ed.  | Social Sciences or History elective (II.A/II/B/II.D)             | 3       |   |         |
| Gen.Ed.  | None   |         | College Option Courses                      | 6       |
| Major    | None   |         | Computer and Network Security               | 3       |
| Major    | BU-101 Principles of Accounting I                                | 4       | Context Course 1                            | -       |
| ,        | BU-201 Business Organization and                                 | 2       | Contact Course 2                            |         |
| Major    | Management   | 3       | Context Course 2                            |         |
| Major    | Business elective  | 3       | Context Course 3                            |         |
| Major    | None   |         | Context Course 4                            | 3       |
| Major    | BU-508 - Database Management Systems                             | 3       | Data Acquisition and Management             |         |
| Major    | None   |         | Database Architecture and Programming       | 3       |
| Major    | None   |         | Enterprise Architectures and Applications   | 3       |
| Major    | None   |         | Foundations of Information Systems          | 3       |
| Major    | BU-203 Principles of Statistics                                  | 3       | Introduction to Statistics                  |         |
| Major    | None   |         | IS Capstone                                 | 3       |
| Major    | BU-509 Projects in Data Processing                               | 3       | IS Elective 1                               |         |
|          | BU-520 Introduction to Computer                                  | 3       | IS Elective 2                               |         |
| Major    | Programming for Business   | Ū       | 10 2.000.10 2                               |         |
| Major    | BU-532 - Microcomputer Operating<br>Systems and Utility Software | 3       | IS Elective 3                               |         |
| Major    | None   | 3       | IS Strategy, Management, and Acquisition    | 3       |
| iviajui  | None   |         | Networks and Business Data                  | 3       |
| Major    | BU-534 - Local Area Network Management                           | 3       | Communication                               |         |
| Major    | None   |         | Project Management                          | 3       |
| Major    | None   |         | Software Application Programming 1          | 3       |
| Major    | None   |         | Software Application Programming 2          | 3       |
| Major    | None   |         | Systems Analysis and Design                 | 3       |
| Major    | None   |         | IT Infratructure and Support                | 3       |
|          | BU-500 Introduction to Microcomputer                             | 3       | Free Elective                               |         |
| Elective | Applications   |         |   |         |
| Elective | BU-530 - Spreadsheet Applications                                | 3       | Free Elective                               |         |
| Elective | BU-859 - Desktop Publishing (Software)                           | 3       | Free Elective                               |         |
| Elective | None   |         | Free Elective                               | 18      |
|          | TOTAL  | 60      | TOTAL                                       | 60      |

Table 4: Course Equivalencies - Microcomputer Applications Software to Management Information Systems Track SPS Course QCC **QCC Course** Credits **SPS Course** Type Credits Gen. Ed. 6 College Option Courses None Gen.Ed. ECON 101 or ECON 101 (I.D.) 3 6 Gen.Ed. English (I.A.) 3 Gen.Ed. Humanities elective (II.A/II.B/II.C/II.D/II.E) 4 Gen.Ed. Laboratory science (I.C.) 4 Gen.Ed. Math (I.B.) Social Sciences or History elective 3 Gen.Ed. (II.A/II/B/II.D) 3 Computer and Network Security Major None Major BU-508 - Database Management Systems 3 **Data Acquisition and Management** 3 **Database Architecture and Programming** Major None 3 **Enterprise Architectures and Applications** Major None 3 Foundations of Information Systems None Major 3 **BU-203 Principles of Statistics** Introduction to Statistics Major IS Capstone 3 Major None IS Strategy, Management, and Acquisition 3 None Major Networks and Business Data 3 Major BU-534 - Local Area Network Management Communication 3 **Project Management** Major None 3 Software Application Programming 1 Major None Software Application Programming 2 3 None Major 3 None Systems Analysis and Design Major Major BU-101 Principles of Accounting I 4 BU-201 Business Organization and 3 Management Major 3 Major Business elective Business Process Design and Workflow 3 **Analysis** Major None 3 Major None Introduction to Data Science 3 Major None Discrete Mathematics and Linear Algebra E-Commerce for Information Systems 3 Major None 3 Managerial Accounting Major None 3 Logistics and Supply Chain Management Major None Principles of Marketing 3 None Major Strategic Human Resource Management 3 Major None 3 Free Elective Major BU-509 Projects in Data Processing BU-520 Introduction to Computer 3 Free Elective Major Programming for Business BU-532 - Microcomputer Operating

> **BU-500** Introduction to Microcomputer 3 Free Elective 3 BU-530 - Spreadsheet Applications Free Elective BU-859 - Desktop Publishing (Software) 3 Free Elective 60 **TOTAL TOTAL** 60

Free Elective

3

Systems and Utility Software

**Applications** 

Major

Elective

Elective

Elective

| Course<br>Type | QCC Course  | QCC<br>Credits | SPS Course                                | SPS<br>Credit |
|----------------|---|----------------|---|---------------|
| Gen.Ed.        | ECON 101 or ECON 101 (I.D.)                                     | 3              |   |               |
| Gen.Ed.        | English (I.A.)  | 6              |   |               |
| Gen.Ed.        | Humanities elective (II.A/II.B/II.C/II.D/II.E)                  | 3              |   |               |
| Gen.Ed.        | Laboratory science (I.C.)                                       | 4              |   |               |
| Gen.Ed.        | Math (I.B.)   | 4              |   |               |
|                | Social Sciences or History elective                             | 2              |   |               |
| Gen.Ed.        | (II.A/II/B/II.D)  | 3              |   |               |
| Gen.Ed.        | None  |                | College Option Courses                    | 6             |
| Major          | None  |                | Computer and Network Security             | 3             |
| Major          | BU-101 Principles of Accounting I                               | 4              | Context Course 1                          |               |
| Major          | BU-201 Business Organization and Management                     | 3              | Context Course 2                          |               |
| Major          | Business elective   | 2              | Context Course 3                          |               |
| Major          | None  | _              | Context Course 4                          | 3             |
| Major          | None  |                | Data Acquisition and Management           | 3             |
| Major          | None  |                | Database Architecture and Programming     | 3             |
| Major          | None  |                | Enterprise Architectures and Applications | 3             |
| Major          | None  |                | Foundations of Information Systems        | 3             |
| Major          | BU-203 Principles of Statistics                                 | 3              | Introduction to Statistics                | ·             |
| Major          | None  | •              | IS Capstone                               | 3             |
| Major          | BU-509 Projects in Data Processing                              | 3              | IS Elective 1                             | Ū             |
| viajo:         | BU-520 Introduction to Computer                                 |                |   |               |
| Major          | Programming for Business  | 3              | IS Elective 2                             |               |
| Major          | BU-502 COBOL Programming  | 3              | IS Elective 3                             |               |
| Major          | None  |                | IS Strategy, Management, and Acquisition  | 3             |
| •              |   |                | Networks and Business Data                |               |
| Major          | None  |                | Communication                             | 3             |
| Major          | None  |                | Project Management                        | 3             |
| Major          | None  |                | Software Application Programming 1        | 3             |
|                | BU-521 - Business Programming with                              | 4              | Software Application Programming 2        |               |
| Major          | Objects (C++)   | -              |   |               |
| Major          | BU-504 - Systems Analysis and Design with Business Applications | 3              | Systems Analysis and Design               |               |
| Major<br>Major | None  | J              | IT Infratructure and Support              | 3             |
| Major          | BU-500 Introduction to Microcomputer                            |                | ••  | 3             |
| Elective       | Applications  | 3              | Free Elective                             |               |
|                | BU522 Business Programming with Visual                          |                | From Flooting                             |               |
| Elective       | Languages   | 3              | Free Elective                             |               |
| Elective       | BU532 Microcomputer Operating Systems                           | 3              | Free Elective                             |               |
| Elective       | None  |                | Free Elective                             | 18            |
|                | TOTAL   | 60             | TOTAL                                     | 60            |

| Table 6: Co<br>Course | urse Equivalencies – Computer Programmir                              | ng to Mana<br>QCC | agement Information Systems Track                                | SPS            |
|-----------------------|---|-------------------|--|----------------|
| Type                  | QCC Course  | Credits           | SPS Course   | <b>Credits</b> |
| Gen.Ed.               | ECON 101 or ECON 101 (I.D.)   | 3                 |  |                |
| Gen.Ed.               | English (I.A.)  | 6                 |  |                |
| Gen.Ed.               | Humanities elective (II.A/II.B/II.C/II.D/II.E)                        | 3                 |  |                |
| Gen.Ed.               | Laboratory science (I.C.)   | 4                 |  |                |
| Gen.Ed.               | Math (I.B.)   | 4                 |  |                |
| Gen.Eu.               | Social Sciences or History elective                                   |                   |  |                |
| Gen.Ed.               | (II.A/II/B/II.D)  | 3                 |  |                |
| Gen.Ed.               | None  |                   | College Option Courses   | 6              |
| Major                 | None  |                   | Computer and Network Security                                    | 3              |
| Major                 | BU-101 Principles of Accounting I<br>BU-201 Business Organization and | 4                 | Free Elective  |                |
| Major                 | Management  | 3                 | Free Elective  |                |
| Major                 | Business elective   | 2                 | Free Elective  |                |
| Major                 | None  |                   | Data Acquisition and Management                                  | 3              |
| Major                 | None  |                   | Database Architecture and Programming                            | 3              |
| Major                 | None  |                   | Enterprise Architectures and Applications                        | 3              |
| Major                 | None  |                   | Foundations of Information Systems                               | 3              |
| Major                 | BU-203 Principles of Statistics                                       | 3                 | Introduction to Statistics                                       | Ū              |
| Major                 | None  | J                 | IS Capstone  | 3              |
| •                     |   | 3                 | Free Elective  | 3              |
| Major                 | BU-509 Projects in Data Processing<br>BU-520 Introduction to Computer |                   |  |                |
| Major                 | Programming for Business  | 3                 | Free Elective  |                |
| Major                 | BU-502 COBOL Programming  | 3                 | Free Elective  |                |
| Major                 | None  |                   | IS Strategy, Management, and Acquisition                         | 3              |
| Major                 | None  |                   | Networks and Business Data Communication                         | 3              |
| Major                 | None  |                   | Project Management   | 3              |
| Major                 | None  |                   | Software Application Programming 1                               | 3              |
| Major                 | BU-521 - Business Programming with Objects (C++)                      | 4                 | Software Application Programming 2                               |                |
| .,.                   | BU-504 - Systems Analysis and Design with                             |                   |  |                |
| Major                 | Business Applications   | 3                 | Systems Analysis and Design Business Process Design and Workflow |                |
| Major                 | None  |                   | Analysis   | 3              |
| Major                 | None  |                   | Introduction to Data Science                                     | 3              |
| Major                 | None  |                   | Discrete Mathematics and Linear Algebra                          | 3              |
| Major                 | None  |                   | E-Commerce for Information Systems                               | 3              |
| Major                 | None  |                   | Managerial Accounting  | 3              |
| Major                 | None  |                   | Logistics and Supply Chain Management                            | 3              |
| Major                 | None  |                   | Principles of Marketing  | 3              |
| Major                 | None  |                   | Strategic Human Resource Management                              | 3              |
| iviajui               | BU-500 Introduction to Microcomputer                                  |                   |  | J              |
| Elective              | Applications  | 3                 | Free Elective  |                |
| _100(110              | BU522 Business Programming with Visual                                |                   | ·  |                |
| Elective              | Languages   | 3                 | Free Elective  |                |
| Elective              | BU532 Microcomputer Operating Systems                                 | 3                 | Free Elective  |                |
|                       | TOTAL   | 60                | TOTAL  | 60             |

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

- The Academic Director and Chief Academic Officer from both programs will meet annually to review the articulation agreement. They will be expected to review student retention, progress to graduation, including transitions between prerequisite and follow-on courses, degree completion, and GPA. Modification or termination of this agreement requires the approval of the Chief Academic Officers of both institutions.
- Should the agreement be modified or terminated, the School of Professional Studies shall honor the terms granted to students who have already transferred into the B.S. in Information Systems for a period of four years or graduation, whichever comes first.
- The School of Professional Studies Registrar and the Information Systems Academic Director shall produce reports of the metrics identified above as well as those suggested in the University's Annual Performance Management Program. which will be circulated to the following groups:
  - At SPS: Dean, Associate Dean for Academic Affairs, Information Systems Consortial Faculty, Associate Dean for Administration and Finance, Director of Student Services, Director of Career Services, Director of Admissions and Advisement, and Director of Online Programs at the School of Professional Studies
  - At QCC: Chief Academic Officer, Academic Director, Director of Student Services, Director of Career Services, and Director of Admission and Advisement.

Sending and receiving college procedures for publicizing agreement, e.g., college catalogs, transfer advisors, Websites

The School of Professional Studies and the Queensborough Community College will publicize this opportunity for students in print and web-based materials and in marketing information. Additionally both institutions will provide information to their own recruitment staff members as well as staff at the University Office of Admission Services.

Effective Date: Fall 2014

**Signatures** 

Signature of Sending College

Dr. Karen Steele, Vice President for Academic Affairs

Queensborough Community College at CUNY

Signature of Sending College

Dr. Jonas Falik, Chair, Business Department Queensborough Community College at CUNY Dean John Mogulescu

Date

9/24/13

Senior University Dean for Academic Affairs and

mogulescu

Dean, CUNY School of Professional Studies

Dr. George Otte

9/24/13 Date

Associate Dean for Academic Affairs

**CUNY School of Professional Studies**