KINGSBOROUGH COMMUNITY COLLEGE
The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Mathematics & Computer Science   **Date:** September 8, 2016

Title Of Course Or Degree: A. S. in Computer Science

<u>Change(s) Initiated:</u> (Please check)

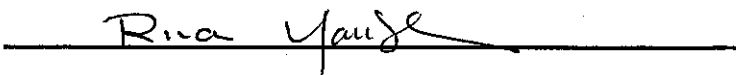|	
☐ Closing of Degree	☑ Change in Degree or Certificate Requirements
☐ Closing of Certificate	☐ Change in Degree Requirements (adding concentration)
☐ New Certificate Proposal	☐ Change in Pre/Co-Requisite
☐ New Degree Proposal	☐ Change in Course Designation
☐ New Course	☐ Change in Course Description
☐ New 82 Course	☐ Change in Course Title, Numbers Credit and/or Hour
☐ Deletion of Course	☐ Change in Academic Policy
	☐ Pathways Submission:
	☐ Life and Physical Science
	☐ Math and Quantitative Reasoning
	☐ A. World Cultures and Global Issues
	☐ B. U.S. Experience in its Diversity
	☐ C. Creative Expression
	☐ D. Individual and Society
	☐ E. Scientific World

☐ Other (please describe):_____

PLEASE ATTACH MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

DEPARTMENTAL ACTION

Action by Department and/or Departmental Committee, if required:

Date Approved: 09/08/2016   Signature, Committee Chairperson:

I have reviewed the attached material/proposal

Signature, Department Chairperson: _____

Revised/Dec.2015/AK

TO: Fall 2016 Curriculum Committee

FROM: Department of Mathematics & Computer Science

DATE: September 8, 2016

RE: Change in Requirements for the A.S. in Computer Science

The Department of Mathematics & Computer Science is proposing changes in the requirements for the A.S. degree in Computer Science.

In the designation of Department Requirements for the degree,

1. **Replace:**   Differential Equations (MAT 5500), 3 credits
   With: Data Structures (CS 3700), 4 credits

2. **Delete:**   Critical Issues in Personal Health (HE 1400), 1 credit

Rational for Change:

1. As a result of considered conversation with Computer Science faculty and the Program Reviewer this past Spring 2016, it is believed that the substitution of CS 3700 (Data Structures, 4 credits) for MAT 5500 (Differential Equations, 3 credits) will be advantageous for our students upon transfer to the 4-year program.

2. The elimination of HE 1400   as a requirement for the major is necessitated by the substitution of a 4-credit for a 3-credit course in the list of degree requirements. We are constrained by the university-designated cap of 60-required credits for the degree.

CURRENT

TOTAL CREDITS: 60
Requirements for Matriculants

COLLEGE REQUIREMENTS

• Successful completion of CUNY Tests in Reading and Writing and the COMPASS Math Skills Test with passing examination scores, unless otherwise exempt, or developmental courses may be required.

• One (1) Writing Intensive course in any discipline from any category below is required. Participation in a Learning Community that includes ENG 1200 or 2400 also satisfies this requirement.

• Two (2) Civic Engagement experiences—satisfied by CE-Certified or CE-Component courses or approved outside activity. See *Graduation Requirements* in the catalog.

CUNY CORE

Approved Required and Flexible Core courses are listed in the *General Education: CUNY Pathways* section of this catalog. When possible it is recommended you fulfill your Required and/ or Flexible Core requirements with courses also required for the major.

REQUIRED CORE

ENG 1200 .... 3 credits
ENG 2400 3
Mathematical & Quantitative Reasoning: 4
    MAT 1500 **or** MAT 1600 **or** MAT/BIO 9100
    or BA/MAT 2200
Life and Physical Sciences 3

FLEXIBLE CORE

One course from each Group A – E plus an additional course from Group E. **No more than two courses in the same discipline.**

A. World Cultures and Global Issues
B. U.S. Experience in its Diversity
C. Creative Expression
D. Individual and Society
E. Scientific World:
    MAT 1500 **or** MAT 1600 **or** MAT/BIO 9100 **or**
    BA/MAT 2200 **or** CS 1200 **or** CS 1340 (if not
    taken for Required Core)
Plus another course selected from Group E list above (if not taken for Required or Flexible Core)

DEGREE REQUIREMENTS

If not taken for the CUNY Required Core or Flexible Core, the following are required:

Introduction to Computing (CS 1200) .... 4 credits
Advanced Programming Techniques
    (CS13A0) 4
Computer Organization and Assembly Language
    Programming (CS 1400) 4
Discrete Structures (CS 3500) 4
Calculus I and II and III (MAT 1500 and MAT
    1600 **and** MAT 2100) 12
Linear Algebra (MAT 5600) 3
Biostatistics (MAT/BIO 9100) **or**
    Business Statistics (BA/MAT 2200) 4
Differential Equations (MAT 5600) 3
Data Structures (CS 3700) 4

ELECTIVES: 0–1 sufficient to meet required total of 60 credits.

A.S. COMPUTER SCIENCE

PROPOSED

TOTAL CREDITS: 60

Requirements for Matriculants

COLLEGE REQUIREMENTS

• Successful completion of CUNY Tests in Reading and Writing and the COMPASS Math Skills Test with passing examination scores, unless otherwise exempt, or developmental courses may be required.

• One (1) Writing Intensive course in any discipline from any category below is required. Participation in a Learning Community that includes ENG 1200 or 2400 also satisfies this requirement.

• Two (2) Civic Engagement experiences—satisfied by CE-Certified or CE-Component courses or approved outside activity. See *Graduation Requirements* in the catalog.

CUNY CORE

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REQUIRED CORE

ENG 1200 .... 3 credits

ENG 2400 3

Mathematical & Quantitative Reasoning:................. 4
    MAT 1500 **or** *MAT 1600* **or** *MAT/BIO 9100*
    or *BA/MAT 2200*

Life and Physical Sciences.. 3

FLEXIBLE CORE

One course from each Group A – E plus an additional course from Group E. **No more than two courses in the same discipline.**

A. World Cultures and Global Issues
B. U.S. Experience in its Diversity
C. Creative Expression
D. Individual and Society
E. Scientific World:
    MAT 1500 **or** *MAT 1600* **or** *MAT/BIO 9100* **or**
    BA/MAT 2200 **or** *CS 1200* **or** *CS 1340 (if not taken for Required Core)*

Plus another course selected from Group E list above (if not taken for Required or Flexible Core)

DEGREE REQUIREMENTS

If not taken for the CUNY Required Core or Flexible Core, the following are required:

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Computer Organization and Assembly Language
    Programming (CS 1400)................................. 4

Discrete Structures (CS 3500).......................... 4

Calculus I and II and III (MAT 1500 **and** MAT
    1600 **and** MAT 2100)................................... 12

Linear Algebra (MAT 5600)................................ 3

Biostatistics (MAT/BIO 9100) **or**
    Business Statistics (BA/MAT 2200) 4

Data Structures (CS 3700)................................. 4

ELECTIVES: 0–1 sufficient to meet required total of 60 credits.