## CURRICULUM TRANSMITTAL COVER PAGE

Department:Mathematics and Computer Science_ Date:2/17/22
Title of Course/Degree/Concentration/Certificat::Computer Science, AS
Change (s) Initiated: (Please check)
$\square$ Closing of Degree
$\square$ Closing of Certificate
$\square$ New Certificate Proposal
$\square$ New Degree Proposal
$\square$ New Course
$\square$ New 82 Course (Pilot Course)
$\square$ Deletion of Courses)
Change in Degree or Certificate
$\square$ Change in Degree: Adding Concentration
$\square$ Change in Degree: Deleting Concentration
$\square$ Change in Prerequisite, Corequisite, and/or Pre/Co-requisite
$\square$ Change in Course Designation
$\square$ Change in Course Description
$\square$ Change in Course Title, Number, Credits and/or Hours
$\square$ Change in Academic Policy
$\square$ Pathways Submission:
$\square$ Life and Physical Science
$\square$ Math and Quantitative Reasoning
$\square$ A. World Cultures and Global Issues
$\square$ B. U.S. Experience in its Diversity
$\square$ C. Creative Expression
$\square$ D. Individual and Society
$\square$ E. Scientific World
$\square$ Change in Program Learning Outcomes
$\square$ Other (please describe): $\qquad$

## PLEASE ATTACH MATERIAL TO ILLUSTRATE AND EXPLAIN ALL CHANGES

## DEPARTMENTAL ACTION

Action by Department and/or Departmental Committee, if required:
Date Approved: $\qquad$ Signature, Committee Chairperson: $\qquad$
If submitted Curriculum Action affects another Department, signature of the affected Departments) is required:

Date Approved: $\qquad$ Signature, Department Chairperson: $\qquad$
Date Approved: $\qquad$ Signature, Department Chairperson: $\qquad$
I have reviewed the attached material/proposal
Signature, Department Chairperson: $\qquad$

TO: $\quad$ Special Meeting of the Curriculum Committee Meeting
FROM: Dr. Rina Yarmish Chair, Department of Mathematics and Computer Science
DATE: $\quad 2 / 17 / 22$

RE: Degree Change for the A.S. Computer Science

The Department of Mathematics and Computer Science is proposing a degree change for the A.S. Computer Science

## Change:

1. Under Required Core, Mathematics and Quantitative Reasoning, the addition of MAT 9010 Introduction to Mathematics with College Algebra
2. Addition of MAT 9010 in the note section discussing placement

## Rationale for Change:

CUNY had mandated the elimination of stand-alone developmental courses effective Fall 2022. MAT 9010 replaces the developmental pathway of MAT M100 to MAT M200 to MAT R300 that lead to MAT 900. The above changes to the degree requirements reflect this pathway.

| Add/Delete/Change | A.A.S. COMPUTER SCIENCE |  |
| :---: | :---: | :---: |
|  | Department: Mathematics and Computer Science |  |
|  | HEGIS: 5103.00 |  |
|  | PROGRAM CODE: 01040 |  |
|  |  |  |
|  | CUNY CORE | CREDITS |
|  |  |  |
|  | REQUIRED CORE: (4 Courses, 12 Credits) | 12 |
|  | When Required Core Courses are specified for a category, they are required for the major |  |
|  | ENG 1200 - Composition I | 3 |
|  | ENG 2400 - Composition II | 3 |
|  | Mathematical and Quantitative Reasoning: | 3 |
| ADD | MAT 9010 - Introduction to Mathematics with College Algebra^ or |  |
|  | MAT 900-College Algebra or ^ |  |
|  | MAT 9B0 - College Algebra for STEM Majors^ |  |
|  | MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or |  |
|  | MAT 1500 - Calculus I |  |
|  | Life and Physical Sciences: | 3 |
|  |  |  |
|  | FLEXIBLE CORE: (6 Courses, 18 Credits) | 18 |
|  | When Flexible Core Courses are specified for a category, they are required for the major. One course from each Group A to D (Group E is satisfied by the courses shown). No more than two courses can be selected from the same discipline. |  |
|  | A. World Cultures \& Global Issues |  |
|  | B. U.S. Experience In Its Diversity |  |
|  | C. Creative Expression |  |
|  | D. Individual \& Society |  |
|  | E. Scientific World ${ }^{\star}$ : |  |
|  | MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or |  |
|  | MAT 1500-Calculus I or |  |
|  | MAT 1600 - Calculus II |  |
|  | AND |  |
|  | CS 1200 - Introduction to Computing |  |
|  |  |  |
|  | Major Requirements (7 to 9 Courses, 24 to 30 Credits) | 24-30 |
|  | CS 13A0 - Advanced Programming Techniques | 4 |
|  | CS 1400 - Computer Organization and Assembly Language Programming | 4 |
|  | CS 3500 - Discrete Structures | 3 |
|  | CS 3700 - Data Structures | 3 |
|  | MAT 5600 - Linear Algebra | 3 |
|  | MAT 9100/BIO 9100 - Biostatistics or | 4 |
|  | MAT 2200/BA 2200 - Business Statistics |  |
|  |  |  |
|  | If not taken for Required Core or Flexible Core: |  |
|  | MAT 1500 - Calculus I | 3 |
|  | MAT 1600 - Calculus II | 3 |
|  |  |  |
|  | Select ONLY ONE (1) of the these two options below based on initial Mathematics Placement:** | 3 |
|  | OPTION 1: |  |
|  | If student's initial Mathematics Placement is below MAT 1500: |  |
|  | MAT 1000-College Trigonometry^ |  |
|  |  |  |


|  | OPTION 2: |  |
| :--- | :--- | :---: |
|  | If student's initial Mathematics Placement is MAT 1500: |  |
|  | MAT 2100 - Calculus III | $0-6$ |
|  | ELECTIVES: $0-6$ credits sufficient to total 60 credits for the degree. | 60 |
|  | TOTAL: |  |
|  | $*$ This program has a waiver to require particular courses in the Common Core, otherwise more <br> than the minimum credits for the degree may be necessary. |  |
| CHANGE | ^ Depending on Math placement, students may be required to complete MAT 900, or MAT 9010 <br> or MAT 9B0, and/or MAT 1400, and/or MAT 1000. |  |
|  | $* *$ Consultation with the Mathematics Department is HIGHLY recommended to ensure that the <br> student selects the correct option. |  |


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|  | PROGRAM CODE: 01040 |  |
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|  | REQUIRED CORE: (4 Courses, 12 Credits) | 12 |
|  | When Required Core Courses are specified for a category, they are required for the major |  |
|  | ENG 1200 - Composition I | 3 |
|  | ENG 2400 - Composition II | 3 |
|  | Mathematical and Quantitative Reasoning: | 3 |
|  | MAT 9010 - Introduction to Mathematics with College Algebra^ or |  |
|  | MAT 900 - College Algebra or ^ |  |
|  | MAT 9B0 - College Algebra for STEM Majors^ |  |
|  | MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or |  |
|  | MAT 1500 - Calculus I |  |
|  | Life and Physical Sciences: | 3 |
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|  | FLEXIBLE CORE: (6 Courses, 18 Credits) | 18 |
|  | When Flexible Core Courses are specified for a category, they are required for the major. One course from each Group A to D (Group E is satisfied by the courses shown). No more than two courses can be selected from the same discipline. |  |
|  | A. World Cultures \& Global Issues |  |
|  | B. U.S. Experience In Its Diversity |  |
|  | C. Creative Expression |  |
|  | D. Individual \& Society |  |
|  | E. Scientific World*^: |  |
|  | MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or |  |
|  | MAT 1500 - Calculus I or |  |
|  | MAT 1600 - Calculus II |  |
|  | AND |  |
|  | CS 1200 - Introduction to Computing |  |
|  |  |  |
|  | Major Requirements (7 to 9 Courses, 24 to 30 Credits) | 24-30 |
|  | CS 13A0 - Advanced Programming Techniques | 4 |
|  | CS 1400 - Computer Organization and Assembly Language Programming | 4 |
|  | CS 3500 - Discrete Structures | 3 |
|  | CS 3700 - Data Structures | 3 |
|  | MAT 5600 - Linear Algebra | 3 |
|  | MAT 9100/BIO 9100 - Biostatistics or | 4 |
|  | MAT 2200/BA 2200 - Business Statistics |  |
|  |  |  |
|  | If not taken for Required Core or Flexible Core: |  |
|  | MAT 1500-Calculus I | 3 |
|  | MAT 1600 - Calculus II | 3 |
|  |  |  |
|  | Select ONLY ONE (1) of the these two options below based on initial Mathematics Placement:** | 3 |
|  | OPTION 1: |  |
|  | If student's initial Mathematics Placement is below MAT 1500: |  |
|  | MAT 1000-College Trigonometry^ |  |
|  |  |  |


|  | OPTION 2: |  |
| :--- | :--- | :---: |
|  | If student's initial Mathematics Placement is MAT 1500: |  |
|  | MAT 2100 - Calculus III | 0.6 |
|  | ELECTIVES: $0-6$ credits sufficient to total 60 credits for the degree. | 60 |
|  | TOTAL: |  |
|  | $*$ This program has a waiver to require particular courses in the Common Core, otherwise more <br> than the minimum credits for the degree may be necessary. |  |
|  | ^ Depending on Math placement, students may be required to complete MAT 900, or MAT 9010 <br> or MAT 9B0, and/or MAT 1400, and/or MAT 1000. |  |
|  | $* * C o n s u l t a t i o n ~ w i t h ~ t h e ~ M a t h e m a t i c s ~ D e p a r t m e n t ~ i s ~ H I G H L Y ~ r e c o m m e n d e d ~ t o ~ e n s u r e ~ t h a t ~ t h e ~$ <br> student selects the correct option. |  |

