KINGSBOROUGH COMMUNITY COLLEGE
The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Department of Mathematics & Computer Science **Date:** 1/26/2022

Title Of Course/Degree/Concentration/Certificate: Mathematics, A.S.

Change(s) Initiated: (Please check)

- ☐ **Closing of Degree**
- ☐ **Closing of Certificate**
- ☐ **New Certificate Proposal**
- ☐ **New Degree Proposal**
- ☐ **New Course**
- ☐ **New 82 Course (Pilot Course)**
- ☐ **Deletion of Course(s)**
- ☒ **Change in Degree or Certificate**
- ☐ **Change in Degree: Adding Concentration**
- ☐ **Change in Degree: Deleting Concentration**
- ☐ **Change in Prerequisite, Corequisite, and/or Pre/Co-requisite**
- ☐ **Change in Course Designation**
- ☐ **Change in Course Description**
- ☐ **Change in Course Title, Number, Credits and/or Hours**
- ☐ **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**
- ☐ **Change in Program Learning Outcomes**
- ☐ **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: _____ **Signature, Committee Chairperson:** _____

If submitted Curriculum Action affects another Department, signature of the affected Department(s) is required:

Date Approved: _____ **Signature, Department Chairperson:** _____

Date Approved: _____ **Signature, Department Chairperson:** _____

I have reviewed the attached material/proposal

Signature, Department Chairperson: Rina Yarmish

Revised/Augl.2018/AK

KINGSBOROUGH
COMMUNITY COLLEGE
★ DREAMS BEGIN HERE ★

TO: Spring 2022 Curriculum Committee

FROM: Prof. Yarmish, Chair, Department of Mathematics & Computer Science

DATE: 1/26/2022

RE: Change in Degree Requirements for Mathematics, A.S.

The Department of Mathematics & Computer Science is proposing a change in Degree Requirements for Mathematics, A.S.

Delete:

MAT 3000

Rationale for Change: Upon deliberation by the appropriate faculty committee, it was the consensus that MAT 3000 remain as a potential elective class rather than as a degree requirement.

Add/Delete/Change	**A.S. MATHEMATICS**	
	Department: Mathematics and Computer Science	
	HEGIS: 5617.00	
	PROGRAM CODE: 01041	
	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
	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*^:	
	MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	
	MAT 1500 - Calculus I or	
	MAT 1600 - Calculus II	
	AND	
	CS 1200 - Introduction to Computing	
CHANGE	**DEGREE REQUIREMENTS:** (~~8~~ 7 to ~~10~~ 9 Courses, ~~24~~ 23 to ~~30~~ 29 Credits)	~~24~~ 23 - ~~30~~ 29
	MAT 2100 - Calculus III	3
	MAT 5500 - Differential Equations	3
	MAT 5600 - Linear Algebra	3
	MAT 9100/BIO 9100 - Biostatistics or	4
	MAT 2200/BA 2200 - Business Statistics	
	CS 3500 - Discrete Structures	3
DELETE	~~MAT 3000 Introduction to Mathematical Concepts in Proof~~	~~1~~
	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: **	7-8
	OPTION 1:	
	If student's initial Mathematics Placement is below MAT 1500:	
	MAT 1000 - College Trigonometry^	3
	AND	
	Select one (1) course from the following:	

	CS 13A0 - Advanced Programming Techniques	4
	MAT 1100 - Finite Mathematics	4
	MAT 3200 - Introduction to Set Theory	4
	MAT 7100 - Applications of Linear Algebra and Vector Analysis	4
	OPTION 2:	
	If student's initial Mathematics Placement is MAT 1500:	
	Select two (2) courses from the following:	4
	CS 13A0 - Advanced Programming Techniques	4
	MAT 1100 - Finite Mathematics	4
	MAT 3200 - Introduction to Set Theory	4
	MAT 7100 - Applications of Linear Algebra and Vector Analysis	4
CHANGE	**ELECTIVES:** ~~0~~ **1** to ~~6~~ **7**credits sufficient to total 60 credits for the degree.	~~**0**~~ **1 - ~~6~~ 7**
	TOTAL:	**60**
	*This program has a waiver to require particular courses in the Common Core, otherwise more 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 or MAT 9B0, and/or MAT 1400 and MAT 1000.	
	**Consultation with the Mathematics Department is HIGHLY recommended to ensure that the student selects the correct option.	

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	Department: Mathematics and Computer Science	
	HEGIS: 5617.00	
	PROGRAM CODE: 01041	
	CUNY CORE	**CREDITS**
	REQUIRED CORE: (4 Courses, 12 Credits)	**12**
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	FLEXIBLE CORE: (6 Courses, 18 Credits)	**18**
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	E. Scientific World*^:	
	MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	
	MAT 1500 - Calculus I or	
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	AND	
	CS 1200 - Introduction to Computing	
	DEGREE REQUIREMENTS: (7 to 9 Courses, 23 to 29 Credits)	23 - 29
	MAT 2100 - Calculus III	3
	MAT 5500 - Differential Equations	3
	MAT 5600 - Linear Algebra	3
	MAT 9100/BIO 9100 - Biostatistics or	4
	MAT 2200/BA 2200 - Business Statistics	
	CS 3500 - Discrete Structures	3
	If not taken for Required Core or Flexible Core:	
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	MAT 1100 - Finite Mathematics	4
	MAT 3200 - Introduction to Set Theory	4
	MAT 7100 - Applications of Linear Algebra and Vector Analysis	4
	OPTION 2:	
	If student's initial Mathematics Placement is MAT 1500:	
	Select two (2) courses from the following:	4
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	MAT 1100 - Finite Mathematics	4
	MAT 3200 - Introduction to Set Theory	4
	MAT 7100 - Applications of Linear Algebra and Vector Analysis	4
	ELECTIVES: 1 to 7 credits sufficient to total 60 credits for the degree.	1 - 7
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