KINGSBOROUGH COMMUNITY COLLEGE The City University of New York

CURRICULUM TRANSMITTAL COVER PAGE

Department: Math and Computer Science	Date: 01/14/2019
Title Of Course/Degree/Concentration/Certif	icate: A.S. Mathematics
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 Program Learning Out	
PLEASE ATTACH MATERIAL TO ILLUS	
DEPARTMENTAL ACTION	
Action by Department and/or Depart	mental Cammittee if required
•	•
,	ture, Committee Chairperson:
If submitted Curriculum Action affec required:	ts another Department, signature of the affected Department(s) is
Date Approved:Signat	ture, Department Chairperson:
Date Approved:Signat	ture, Department Chairperson:
I have reviewed the attached material	/proposal
Signature, Department Chairperson:	R Yanx 1/16/2019



TO:

Spring 2019 Curriculum Committee

FROM:

Department of Mathematics & Computer Science

DATE:

01/14/2019

RE:

Change in Degree Requirements for the A.S. in Mathematics

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

Rationale for Change:

Adjustments to degree requirements per:

- 1. Credit change for: MAT 1400, MAT 1500, MAT 1600, MAT 2100, CS 1200, and CS 3500.
- 2. Addition of MAT 3000: Introduction to Mathematical Concepts in Proof (1 credit) as requirement for the major.
- 3. Deletion of HE 1400 as major requirement.
- 4. Allowing for the option of taking MAT 9A0.

CURRENT

A.S. MATHEMATICS	·
HEGIS: 5617.00	
PROGRAM CODE: 01041	
CUNY CORE	CREDITS
	-
REQUIRED CORE: (4 Courses, 43 12 Credits)	13 12
When Required Core Courses are specified for a category, they are required for the	
major	
ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3
Mathematical and Quantitative Reasoning**:	04-3
MAT 9A0 - Algebra for STEM Majors ^a or	
MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	
MAT 1500 - Calculus I	
Life and Physical Sciences	3
	00.45
FLEXIBLE CORE:	20 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 and Global Issues	
B. U.S. Experience In Its Diversity	
C. Creative Expression	
D. Individual & Society	
E. Scientific World*A:	
MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	04- 3
MAT 1500 - Calculus I or	04- 3
MAT 1600 - Calculus II	04- 3
AND	
CS 1200 - Introduction to Computing	04- 3
Major Requirements (8 8-10 Courses, 27 24 - 30 Credits)	
MAT 2100 - Calculus III	04- 3
MAT 5500 - Differential Equations	3
MAT 5600 - Linear Algebra	3
MAT 9100/BIO 9100 - Biostatistics or	4
I WAT 2200/BA 2200 - Business Statistics	1
MAT 2200/BA 2200 - Business Statistics CS 3500 - Discrete Structures	04-3
CS 3500 - Discrete Structures HE 1400 - Critical Issues in Personal Health	04 3
	Department: Mathematics and Computer Sciences HEGIS: 5617.00 PROGRAM CODE: 01041 CUNY CORE REQUIRED CORE: (4 Courses, 13 12 Credits) When Required Core Courses are specified for a category, they are required for the major ENG 1200 - English Composition I ENG 2400 - English Composition II Mathematical and Quantitative Reasoning*^: MAT 900 - College Algebra* or MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics* or MAT 1500 - Calculus I Life and Physical Sciences FLEXIBLE CORE: 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 and 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 AND CS 1200 - Introduction to Computing Major Requirements (8 8-10 Courses, 27 24 - 30 Credits) MAT 2100 - Calculus II MAT 5500 - Differential Equations MAT 5500 - Linear Algebra

CURRENT

ADD	If not taken for Required Core or Flexible Core:	*****
ADD & CHANGE	MAT 1500 - Calculus I	04.2
(CREDITS)		0 4- 3
ADD & CHANGE	MAT 1600 - Calculus II	04.9
(CREDITS)		04- 3
DELETE	Select two (2) courses from the following:	
DELETE	CS 13A0 - Advanced Programming Techniques	
DELETE	CS 1400 - Computer Organization and Assembly Language Programming	
DELETE	MAT 1100 - Finite Mathematics-	
DELETE	MAT 3200 - Introduction to Set Theory	
DELETE	MAT 7100 - Applications of Linear Algebra	
ADD	Select ONLY ONE (1) of the these two options below based on initial Mathematics	7-8
ADD	Placement: **	7-0
ADD	OPTION 1:	
ADD	If student's initial Mathematics Placement is below MAT 1500:	
ADD	MAT 1000 - College Trigonometry ^a	
ADD	AND	
ADD .	Select one (1) course from the following:	
	CS 13A0 - Advanced Programming Techniques	
DELETE	CS 1400 - Computer Organization and Assembly Language Programming	
	MAT 1100 - Finite Mathematics	
	MAT 3200 - Introduction to Set Theory	•
DELETE	MAT 7100 - Applications of Linear Algebra	
	- January Control of the Control of	
ADD	OPTION 2:	
ADD	If student's initial Mathematics Placement is MAT 1500:	- .
ADD	Select two-(2) courses from the following:	
ADD	CS 13A0 - Advanced Programming Techniques	
ADD	MAT 1100 - Finite Mathematics	
ADD	MAT 3200 - Introduction to Set Theory	

CHANGE	ELECTIVES: 0 - 6 credits sufficient to total 60 credits for the degree.	
		*··
	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.	
ADD	^ Depending on Math placement, students may be required to complete MAT 900,	
	or MAT 9A0, and/or MAT 1400 and MAT 1000.	
ADD	**Consultation with the Mathematics Department is HIGHLY recommended to ensure	
	that the student selects the correct option.	
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PROPOSED

	A.S. MATHEMATICS	
	Department: Mathematics and Computer Sciences	
	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 - English Composition I	3
······	ENG 2400 - English Composition II	3
	Mathematical and Quantitative Reasoning*A:	3
	MAT 900 - College Algebra^ or	
	MAT 9A0 - Algebra for STEM Majors^ or	
	MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	
	MAT 1500 - Calculus I	
	Life and Physical Sciences	3
	EL EVIDI E AADE	40
	FLEXIBLE CORE:	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 and 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	3
- ,	MAT 1500 - Calculus I or	3
	MAT 1600 - Calculus II	3
	AND CS 1200 - Introduction to Computing	3
-	Major Requirements (8-10 Courses, 24 - 30 Credits)	
	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
	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
	INAT TOUC CARGINA II	1 3

PROPOSED

	Placement: **	
	OPTION 1:	·-··
	If student's initial Mathematics Placement is below MAT 1500:	
	MAT 1000 - College Trigonometry^	
	AND	
•	Select one (1) course from the following:	<u>,</u>
	CS 13A0 - Advanced Programming Techniques	
	MAT 1100 - Finite Mathematics	
	MAT 3200 - Introduction to Set Theory	
	OPTION 2:	`
	If student's initial Mathematics Placement is MAT 1500:	
	Select two (2) courses from the following:	
	CS 13A0 - Advanced Programming Techniques	
-	MAT 1100 - Finite Mathematics	
	MAT 3200 - Introduction to Set Theory	
<u> </u>		
	ELECTIVES: 0 - 6 credits sufficient to total 60 credits for the degree.	
·····	TOTAL:	60
	*This program has a universe require particular sources in the Common Care	
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	otherwise more than the minimum credits for the degree may be necessary.	-
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