KINGSBOROUGH COMMUNITY COLLEGE

Curriculum Committee Meeting

Thursday, May 2nd 2019

2:00 P.M. – 4:00 P.M.

President's Office – A226

AGENDA

Program Learning Outcomes (Informational Item)			
1. A.A. Criminal Justice			
SPECIAL ACTIONS			
NONE			
CHANGE IN DEGREE TYPE			
NONE			
CHANGE IN DEGREE REQUIREMENT			
Department of Biology			
1. A.S. Biology			
HEGIS: 5604.00			
PROGRAM CODE: 01039			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, 13 Credits)	13	**REQUIRED CORE:** (4 Courses, 13 Credits)	13
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical & Quantitative Reasoning*:	3	Mathematical & Quantitative Reasoning*^:	3
MAT 900 - College Algebra		MAT 900 - College Algebra **or**	
		MAT 9A0 - Algebra for STEM Majors	
Life and Physical Sciences*:	4	Life and Physical Sciences*:	4
BIO 1300 – General Biology I		BIO 1300 – General Biology I	
FLEXIBLE CORE: (6 Courses, ~~20~~ **19** Credits)	~~20~~ **19**	**FLEXIBLE CORE:** (6 Courses,**19** Credits)	**19**
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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	

D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
BIO 1400 – General Biology II		BIO 1400 – General Biology II	
MAT 1400 - Analytic Geometry and Pre-Calculus Math	~~04~~ **3**	MAT 1400 - Analytic Geometry and Pre-Calculus Math	**3**
DEPARTMENT REQUIREMENTS (3 Courses, 11 to 12 Credits)	11-12	**DEPARTMENT REQUIREMENTS** (3 Courses, 11 to 12 Credits)	11-12
CHM 1100 – General Chemistry I	4	CHM 1100 – General Chemistry I	4
CHM 1200 - General Chemistry II	4	CHM 1200 - General Chemistry II	4
CP 1100 - Introduction to Computers and Computer Applications (4 cars) or	4 - 3	CP 1100 - Introduction to Computers and Computer Applications (4 cars) or	4 - 3
BIO/CIS 6000 – Computer Applications in Bioinformatics (3 cars.)		BIO/CIS 6000 – Computer Applications in Bioinformatics (3 cars.)	
CONCENTRATIONS: (2 Courses, 8 Credits)	8	**CONCENTRATIONS:** (2 Courses, 8 Credits)	8
Select **one (1)** of the following concentrations:		Select **one (1)** of the following concentrations:	
Biology Transfer: (2 Courses, 8 Credits)		**Biology Transfer:** (2 Courses, 8 Credits)	
Select **two (2)** of the following Biology Laboratory courses:		Select **two (2)** of the following Biology Laboratory courses:	
BIO 2100 - Comparative Anatomy (4 cars.) or		BIO 2100 - Comparative Anatomy (4 cars.) or	
BIO 2200 - Developmental Biology (4 cars.) or		BIO 2200 - Developmental Biology (4 cars.) or	
BIO 5000 - General Microbiology (4 cars.) or		BIO 5000 - General Microbiology (4 cars.) or	
BIO 5200 - Marine Biology (4 cars.) or		BIO 5200 - Marine Biology (4 cars.) or	
BIO 5300 - Ecology (4 cars.) or		BIO 5300 - Ecology (4 cars.) or	
BIO 5800 - Recombination DNA Technology (4 cars.) or		BIO 5800 - Recombination DNA Technology (4 cars.) or	
BIO 5900 – Genetics (4 cars.) or		BIO 5900 – Genetics (4 cars.) or	
BIO 6500 - Molecular and Cellular Biology (4 cars.)		BIO 6500 - Molecular and Cellular Biology (4 cars.)	
OR		**OR**	
Allied Health Transfer (2 Courses, 8 Credits):		**Allied Health Transfer** (2 Courses, 8 Credits):	
BIO 1100 - Human Anatomy and Physiology I (4 cars.)		BIO 1100 - Human Anatomy and Physiology I (4 cars.)	
BIO 1200 - Human Anatomy and Physiology II (4 cars.)		BIO 1200 - Human Anatomy and Physiology II (4 cars.)	
ELECTIVES: ~~7 - 8~~ **8 - 9** credits sufficient to meet the required total 60 credits for the degree.	~~7 - 8~~ **8 -9**	**ELECTIVES: 8 - 9** credits sufficient to meet the required total 60 credits for the degree.	**8 -9**
Allied Health Transfer Option, Suggested Elective:		Allied Health Transfer Option, Suggested Elective:	
BIO/MAT 9100 – Biostatistics (4 cars.)		BIO/MAT 9100 – Biostatistics (4 cars.)	
Transfer to a Physician Assistant Program, Suggested Elective:		Transfer to a Physician Assistant Program, Suggested Elective:	
BIO 5100 – Microbiology in Health and Disease (4 cars.)		BIO 5100 – Microbiology in Health and Disease (4 cars.)	
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 9A0	
Department of Business			
1. A.S. Accounting			
HEGIS CODE: 5002.00			
PROGRAM CODE: 01045			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, 12 Credits)	12	REQUIRED CORE: (4 Courses, 12 Credits)	12
When Required Core courses are specified for a category, they are strongly suggested and/or required for the major.		When Required Core courses are specified for a category, they are strongly suggested and/or required for the major.	
ENG 1200	3	ENG 1200	3
ENG 2400	3	ENG 2400	3
Mathematical and Quantitative Reasoning	3	Mathematical and Quantitative Reasoning	3
MAT 2200 - Business Statistics**		MAT 2200 - Business Statistics**	
Life and Physical Sciences*	4	Life and Physical Sciences*	4
FLEXIBLE CORE (6 Courses, 18 Credits)	18	FLEXIBLE CORE (6 Courses, 18 Credits)	18
When Flexible Core courses are specified for a category, they are strongly suggested and/or required for the major. One (1) course from each Group A to E and one (1) additional course from any group		When Flexible Core courses are specified for a category, they are strongly suggested and/or required for the major. One (1) course from each Group A to E and one (1) additional course from any group	
A. World Cultures and Global Issues		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
ECO 1200- Macroeconomics		ECO 1200- Macroeconomics *	
ECO 1300- Microeconomics		ECO 1300- Microeconomics *	
E. Scientific World		E. Scientific World	
DEPARTMENT REQUIREMENTS (9 to 11 Courses, 29 to 36 Credits)	29-36	DEPARTMENT REQUIREMENTS (9 to 11 Courses, 29 to 36 Credits)	29-36
ACC 1100 - Fundamentals of Accounting I	4	ACC 1100 - Fundamentals of Accounting I	4
ACC 1200 - Fundamentals of Accounting II	4	ACC 1200 - Fundamentals of Accounting II	4
ACC 2100 - Intermediate Accounting I	3	ACC 2100 - Intermediate Accounting I	3
ACC 2200 - Intermediate Accounting II	3	ACC 2200 - Intermediate Accounting II	3
BA 1100 - Fundamentals of Business	3	BA 1100 - Fundamentals of Business	3
BA 1200 - Business Law I	3	BA 1200 - Business Law I	3
BA 6000 - Introduction to Computer Concepts	3	BA 6000 - Introduction to Computer Concepts	3
ECO 1200 - Macroeconomics	3	ECO 1200 - Macroeconomics	3
ECO 1300 - Microeconomics	3	ECO 1300 - Microeconomics	3
AND		**AND**	

IF ECO 1200 or ECO 1300 is taken to satisfy Pathways Flexible Core, THEN choose one (1) of the following courses. IF BOTH ECO 1200 and ECO 1300 are taken to satisfy Pathways Flexible Core, then choose two (2) of the following courses:		IF ECO 1200 or ECO 1300 is taken to satisfy Pathways Flexible Core, THEN choose one (1) of the following courses. IF BOTH ECO 1200 and ECO 1300 are taken to satisfy Pathways Flexible Core, then choose two (2) of the following courses:	
BA 1300 – Business Law II **or**	3	BA 1300 – Business Law II **or**	3
BA 6100 – Spreadsheet Applications in Business **or**	3	BA 6100 – Spreadsheet Applications in Business **or**	3
ECO 1400 – Money and Banking **or**	3	ECO 1400 – Money and Banking **or**	3
ACC 3100 – Cost Accounting** **or**	4	ACC 3100 – Cost Accounting** **or**	4
ACC 6000 – Microcomputer Accounting Applications	3	ACC 6000 – Microcomputer Accounting Applications	3
ELECTIVES:	1	ELECTIVES:	1
1 credit sufficient to meet required total of 60		1 credit sufficient to meet required total of 60	
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	60
NOTE: **This is a 4-credit course. For Financial Aid, TAP will count 3 credits towards your degree requirements. Additional credit(s) will go towards electives, if available. Consultation with a program advisor to address financial aid and academic planning is **highly recommended.**		**NOTE:** **This is a 4-credit course. For Financial Aid, TAP will count 3 credits towards your degree requirements. Additional credit(s) will go towards electives, if available. Consultation with a program advisor to address financial aid and academic planning is **highly recommended.**	
		***It is HIGHLY RECOMMENDED that students take both ECO 1200 and ECO 1300 to satisfy the Pathways Flexible Core courses. However, if neither course is used within the Pathways Flexible Core, both must be taken within the major and no optional courses will be required.**	
2. A.S. Business Administration			
HEGIS CODE: 5002.00			
PROGRAM CODE: 01050			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, 12 Credits)	12	REQUIRED CORE: (4 Courses, 12 Credits)	12
When Required Core courses are specified for a category, they are strongly suggested and/or required for the major.		When Required Core courses are specified for a category, they are strongly suggested and/or required for the major.	
ENG 1200	3	ENG 1200	3
ENG 2400	3	ENG 2400	3
Mathematical and Quantitative Reasoning	3	Mathematical and Quantitative Reasoning	3
MAT 2200 - Business Statistics**		MAT 2200 - Business Statistics**	
Life and Physical Sciences*	4	Life and Physical Sciences*	4
FLEXIBLE CORE (6 Courses, 18 Credits)	18	FLEXIBLE CORE (6 Courses, 18 Credits)	18

When Flexible Core courses are specified for a category, they are strongly suggested and/or required for the major. One (1) course from each Group A to E and one (1) additional course from any group		When Flexible Core courses are specified for a category, they are strongly suggested and/or required for the major. One (1) course from each Group A to E and one (1) additional course from any group	
A. World Cultures and Global Issues		A. World Cultures and Global Issues	
		It is recommended that students planning to transfer to Brooklyn College's BBA program take PHI 6800	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
ECO 1200- Macroeconomics		ECO 1200- Macroeconomics *	
ECO 1300- Microeconomics		ECO 1300- Microeconomics *	
E. Scientific World		E. Scientific World	
DEPARTMENT REQUIREMENTS (9 to 11 Courses, 29 to 35 Credits)	29-35	DEPARTMENT REQUIREMENTS (9 to 11 Courses, 29 to 35 Credits)	29-35
ACC 1100 - Fundamentals of Accounting I	4	ACC 1100 - Fundamentals of Accounting I	4
ACC 1200 - Fundamentals of Accounting II	4	ACC 1200 - Fundamentals of Accounting II	4
BA 1100 - Fundamentals of Business	3	BA 1100 - Fundamentals of Business	3
BA 1200 - Business Law I	3	BA 1200 - Business Law I	3
BA 1400 - Principles of Marketing	3	BA 1400 - Principles of Marketing	3
BA 3100 - Organizational Behavior and Management	3	BA 3100 - Organizational Behavior and Management	3
BA 6000 - Introduction to Computer Concepts	3	BA 6000 - Introduction to Computer Concepts	3
ECO 1200 - Macroeconomics	3	ECO 1200 - Macroeconomics	3
ECO 1300 - Microeconomics	3	ECO 1300 - Microeconomics	3
AND		**AND**	
IF ECO 1200 or ECO 1300 is taken to satisfy Pathways Flexible Core, THEN choose one (1) of the following courses. IF BOTH ECO 1200 and ECO 1300 are taken to satisfy Pathways Flexible Core, then choose two (2) of the following courses:		IF ECO 1200 or ECO 1300 is taken to satisfy Pathways Flexible Core, THEN choose one (1) of the following courses. IF BOTH ECO 1200 and ECO 1300 are taken to satisfy Pathways Flexible Core, then choose two (2) of the following courses:	
BA 1300 – Business Law II **or**	3	BA 1300 – Business Law II **or**	3
BA 6100 – Spreadsheet Applications in Business **or**	3	BA 6100 – Spreadsheet Applications in Business **or**	3
ECO 1400 – Money and Banking ~~**or**~~	3	ECO 1400 – Money and Banking	3
~~TAH 500 - Labor Relations and Customer Service Practices^~~	~~3~~		
ELECTIVES:	1	ELECTIVES:	1
1 credit sufficient to meet required total of 60		1 credit sufficient to meet required total of 60	
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	60
NOTE:		**NOTE:**	
~~^Students interested in pursuing careers in Customer Service should take this course.~~			

**This is a 4-credit course. For Financial Aid, TAP will count 3 credits towards your degree requirements. Additional credit(s) will go towards electives, if available. Consultation with a program advisor to address financial aid and academic planning is highly recommended.		**This is a 4-credit course. For Financial Aid, TAP will count 3 credits towards your degree requirements. Additional credit(s) will go towards electives, if available. Consultation with a program advisor to address financial aid and academic planning is highly recommended.	
		***It is HIGHLY RECOMMENDED that students take both ECO 1200 and ECO 1300 to satisfy the Pathways Flexible Core courses. However, if neither course is used within the Pathways Flexible Core, both must be taken within the major and no optional courses will be required.**	
Department of Mathematics and Computer Science			
1. A.A.S. Computer Information Systems			
HEGIS CODE: 5101.00			
PROGRAM CODE: 01055			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~13~~ 12-13 Credits)	~~13~~ **12-13**	**REQUIRED CORE: (4 Courses, 12-13 Credits)**	**12-13**
When Required Core courses are specified for a category, they are strongly suggested and/or required for the major.		When Required Core courses are specified for a category, they are strongly suggested and/or required for the major.	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical and Quantitative Reasoning:	**3 - 4**	Mathematical and Quantitative Reasoning:	**3 - 4**
MAT 1400 – Analytic Geometry and Pre-Calculus* or	~~04~~ **3**	MAT 1400 – Analytic Geometry and Pre-Calculus* or	**3**
MAT/BA 2200 – Business Statistics*	4	MAT/BA 2200 – Business Statistics*	4
Life and Physical Sciences	3	Life and Physical Sciences	3
FLEXIBLE CORE: (3 Courses, 9 Credits)	9	**FLEXIBLE CORE: (3 Courses, 9 Credits)**	9
When Flexible Core Courses are specified for a category, they are strongly suggested and/or required for the major.		When Flexible Core Courses are specified for a category, they are strongly suggested and/or required for the major.	
Select one (1) course from three (3) Groups A to E for a total of nine (9) credits. Each Course Must be in a Different Discipline		Select one (1) course from three (3) Groups A to E for a total of nine (9) credits. Each Course Must be in a Different Discipline	
A. World Cultures & Global Issues		A. World Cultures & Global Issues	

B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
		MAT 900 - College Algebra or ^	**3**
		MAT 9A0 - Algebra for STEM Majors ^	**3**
DEGREE REQUIREMENTS: (11 Courses, 37 to ~~39~~ **38 Credits)**	37- ~~39~~ **38**	**DEGREE REQUIREMENTS: (11 Courses,** 37 to **38 Credits)**	37 - **38**
CP 500 - Introduction to Computer Programming	4	CP 500 - Introduction to Computer Programming	4
CP 2100 - C++ Programming I	4	CP 2100 - C++ Programming I	4
CP 2200 - C++ Programming II	4	CP 2200 - C++ Programming II	4
CS 1200 - Introduction to Operating Systems	3	CS 1200 - Introduction to Operating Systems	3
CIS 1500 - Applied Computer Architecture	3	CIS 1500 - Applied Computer Architecture	3
CIS 3100 - Introduction to Database	3	CIS 3100 - Introduction to Database	3
ACC 1100 – Fundamentals of Accounting I **or**	3 - 4	ACC 1100 – Fundamentals of Accounting I **or**	3 - 4
BA 1100 - Fundamentals of Business **or**		BA 1100 - Fundamentals of Business **or**	
BA 1200 - Business Law I		BA 1200 - Business Law I	
HE 1400 - Critical Issues in Personal Health	1	HE 1400 - Critical Issues in Personal Health	1
AND		**AND**	
Select three (3) courses from the following	~~12-13~~ **12**	**Select three (3) courses from the following**	**12**
CP 6200 - JAVA Programming 2	4	CP 6200 - JAVA Programming 2	4
~~CP 7100 - Programming In UNIX/LINUX~~	~~5~~		
CIS 2100 - Introduction to Webpage Development	4	CIS 2100 - Introduction to Webpage Development	4
CIS 2200 - HTML Authoring and JavaScript	4	CIS 2200 - HTML Authoring and JavaScript	4
CIS 3200 - Advanced Database Programming	4	CIS 3200 - Advanced Database Programming	4
CIS 4500 - Network Server Administration	4	CIS 4500 - Network Server Administration	4
ELECTIVES: ~~0 - 1~~ **0 -2** credits sufficient to total 60 credits for the degree.	~~0 - 1~~ **0 - 2**	**ELECTIVES**: **0 -2** credits sufficient to total 60 credits for the degree.	**0-2**
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 9A0, and MAT 1400.	

2. A.S. Computer Science			
HEGIS CODE: 5103.00			
PROGRAM CODE: 01041			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~13~~ 12 Credits)	~~13~~ **12**	**REQUIRED CORE: (4 Courses, 12 Credits)**	**12**
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical and Quantitative Reasoning*:	~~04~~ **3**	Mathematical and Quantitative Reasoning*^:	**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	~~04~~ **3**	MAT 1500 – Calculus I	**3**
Life and Physical Sciences	3	Life and Physical Sciences	3
FLEXIBLE CORE:	~~20~~ **18**	**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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*^:		E. Scientific World*^:	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	**3**
		MAT 1500 - Calculus I or	**3**
MAT 1600 - Calculus II	~~04~~ **3**	**MAT 1600 - Calculus II**	**3**
AND		**AND**	
CS 1200 - Introduction to Computing	~~04~~ **3**	**CS 1200 - Introduction to Computing**	**3**
Major Requirements (7 - 9 Courses, ~~27~~ 24 - 30 Credits)		**Major Requirements (7 - 9 Courses, 24 - 30 Credits)**	
CS 13A0 - Advanced Programming Techniques	4	CS 13A0 - Advanced Programming Techniques	4
CS 1400 - Computer Organization and Assembly Language Programming	4	CS 1400 - Computer Organization and Assembly Language Programming	4
CS 3500 - Discrete Structures	~~04~~ **3**	CS 3500 - Discrete Structures	**3**
CS 3700 - Data Structures	~~04~~ **3**	CS 3700 - Data Structures	**3**
~~MAT 2100 - Calculus III~~	~~04~~		
MAT 5600 - Linear Algebra	3	MAT 5600 - Linear Algebra	3

MAT 9100/BIO 9100 - Biostatistics **or**	4	MAT 9100/BIO 9100 - Biostatistics **or**	4
MAT 2200/BA 2200 - Business Statistics		MAT 2200/BA 2200 - Business Statistics	
		If not taken for Required Core or Flexible Core:	
		MAT 1500 - Calculus I	~~04~~ **3**
		MAT 1600 - Calculus II	~~04~~ **3**
		Select ONLY ONE (1) of the 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	
ELECTIVES: 0 **- 6** credits sufficient to total 60 credits for the degree.	0 **-6**	**ELECTIVES:** 0 **- 6** credits sufficient to total 60 credits for the degree.	0 **-6**
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 9A0, and/or MAT 1400, and/or MAT 1000.	
		****Consultation with the Mathematics Department is HIGHLY recommended to ensure that the student selects the correct option.**	
3. A.S. Mathematics			
HEGIS CODE: 5617.00			
PROGRAM CODE: 01041			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~13~~ 12 Credits)	~~13~~ **12**	**REQUIRED CORE: (4 Courses, 12 Credits)**	12

When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical and Quantitative Reasoning*^:	~~04~~ **3**	Mathematical and Quantitative Reasoning*^:	**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	~~04~~ **3**	MAT 1500 - Calculus I	**3**
Life and Physical Sciences	3	Life and Physical Sciences	3
FLEXIBLE CORE:	~~20~~ **18**	**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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*^:		E. Scientific World*^:	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics^ or	**3**
		MAT 1500 - Calculus I or	**3**
MAT 1600 - Calculus II	~~04~~ **3**	**MAT 1600 - Calculus II**	**3**
AND		**AND**	
CS 1200 - Introduction to Computing	~~04~~ **3**	CS 1200 - Introduction to Computing	**3**
Major Requirements: (8-10 Courses, ~~27~~ 24 - 30 Credits)	~~27~~ **24-30**	**Major Requirements: (8-10 Courses, 24 - 30 Credits)**	**24-30**
MAT 2100 - Calculus III	~~04~~ **3**	MAT 2100 - Calculus III	**3**
MAT 5500 - Differential Equations	3	MAT 5500 - Differential Equations	3
MAT 5600 - Linear Algebra	3	MAT 5600 - Linear Algebra	3
MAT 9100/BIO 9100 - Biostatistics **or**	4	MAT 9100/BIO 9100 - Biostatistics **or**	4
MAT 2200/BA 2200 - Business Statistics		MAT 2200/BA 2200 - Business Statistics	
CS 3500 - Discrete Structures	~~04~~ **3**	CS 3500 - Discrete Structures	**3**
~~HE 1400 - Critical Issues in Personal Health~~	~~1~~		

		MAT 3000 Introduction to Mathematical Concepts in Proof	**1**
		If not taken for Required Core or Flexible Core:	
		MAT 1500 - Calculus I	~~04~~ **3**
		MAT 1600 - Calculus II	~~04~~ **3**
~~Select **two (2)** courses from the following:~~			
~~CS 13A0 - Advanced Programming Techniques~~			
~~CS 1400 - Computer Organization and Assembly Language Programming~~			
~~MAT 1100 - Finite Mathematics~~			
~~MAT 3200 - Introduction to Set Theory~~			
~~MAT 7100 - Applications of Linear Algebra~~			
		Select <u>ONLY ONE</u> (1) of the 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^	
		AND	
		Select **one (1)** course from the following:	
		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>ELECTIVES</u>: 0 **- 6** credits sufficient to total 60 credits for the degree.	0 **- 6**	**<u>ELECTIVES</u>:** 0 **- 6** credits sufficient to total 60 credits for the degree.	**0-6**
<u>TOTAL CREDITS:</u> 60	60	**<u>TOTAL CREDITS:</u> 60**	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.		*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 9A0, and/or MAT 1400 and MAT 1000.	
		****Consultation with the Mathematics Department is HIGHLY recommended to ensure that the student selects the correct option.**	
Department of Physical Sciences			
1. A.S. Chemistry			
HEGIS CODE: 5619.00			
PROGRAM CODE: 01043			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~14~~ **13** Credits)	~~14~~ **13**	**REQUIRED CORE:** (4 Courses, **13** Credits)	**13**
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical and Quantitative Reasoning*:	~~04~~ **3**	Mathematical and Quantitative Reasoning*:	**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	~~04~~	MAT 1500 – Calculus I	**3**
Life and Physical Sciences*:	4	Life and Physical Sciences*:	4
CHM 1100 - General Chemistry I		CHM 1100 - General Chemistry I	
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	**FLEXIBLE CORE:** (6 Courses, 20 Credits)	20
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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	

D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
~~MAT 1600 - Calculus II~~		~~MAT 1600 - Calculus II~~	
		PHY 1300 – Advanced General Physics I	
CHM 1200 - General Chemistry II		CHM 1200 - General Chemistry II	
DEPARTMENT REQUIREMENTS (~~04~~ **7**Courses, ~~18~~ **26-27** Credits)		**DEPARTMENT REQUIREMENTS** (**7** Courses, **26-27** Credits)	
		Additional Physical Sciences Requirements (3 Courses, 14 Credits)	
CHM 3100 – Organic Chemistry I	5	CHM 3100 – Organic Chemistry I	5
CHM 3200 – Organic Chemistry II	5	CHM 3200 – Organic Chemistry II	5
~~PHY 1300 – Advanced General Physics I~~	~~04~~		
PHY 1400 – Advanced General Physics II	4	PHY 1400 – Advanced General Physics II	4
		Additional Mathematics Requirements (2 Courses, 6 Credits)	**6**
		Select Two (2) additional courses beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:	
		MAT 1000 - College Trigonometry^	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics (Recommended)	
		MAT 1500 - Calculus I (Recommended)	
		MAT 1600 - Calculus II (Recommended)	
		MAT 2100 - Calculus III	
		MAT 5500 - Differential Equations	
		MAT 5600 - Linear Algebra	
		Additional Science and Mathematics Electives (2 Courses, 6 - 7 Credits)	
		Elective Credits in CHM, CS, EGR, EPS, MAT, PHY, or SCI	
ELECTIVES: ~~8~~ **0 - 1** credits sufficient to meet the required total 60 credits for the degree.	~~8~~ **0-1**	**ELECTIVES: 0 - 1** credits sufficient to meet the required total 60 credits for the degree.	**0-1**
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 select MAT 1000	
2. A.S. Earth and Planetary Science			
HEGIS: 5499.00			
PROGRAM CODE: 34242			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~14~~ **13** Credits)	~~14~~ **13**	**REQUIRED CORE:** (4 Courses, **13** Credits)	**13**
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical & Quantitative Reasoning*:	~~04~~ **3**	Mathematical & Quantitative Reasoning*:	**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	~~04~~ **3**	MAT 1500 – Calculus I	**3**
Life and Physical Sciences*:	4	Life and Physical Sciences*:	4
CHM 1100 - General Chemistry I		CHM 1100 - General Chemistry I	
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	**FLEXIBLE CORE:** (6 Courses, 20 Credits)	20
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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
~~MAT 1600 - Calculus II~~			
EPS 3100 - Meteorology		EPS 3100 - Meteorology	
		EPS 3800 – Introduction to Earth Science	

DEPARTMENT REQUIREMENTS (~~6~~ **7** Courses, ~~24~~ **26** Credits)	~~24~~ **26**	**DEPARTMENT REQUIREMENTS** (**7** Courses, **26** Credits)	**26**
		Additional Physical Sciences Requirements (5 Courses, 20 Credits)	
EPS 3200 – Oceanography	4	EPS 3200 – Oceanography	4
EPS 3300 – Physical Geography	4	EPS 3300 – Physical Geography	4
EPS 3500 – Astronomy	4	EPS 3500 – Astronomy	4
EPS 3600 – Planetology	4	EPS 3600 – Planetology	4
~~EPS 3800 – Introduction to Earth Science~~	~~04~~		
PHY 1100 – General Physics I	4	PHY 1100 – General Physics I	4
		Additional Mathematics Requirements (2 Courses, 6 Credits)	**6**
		Select Two (2) additional courses beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:	
		MAT 1000 - College Trigonometry^	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics (Recommended)	
		MAT 1500 - Calculus I (Recommended)	
		MAT 1600 - Calculus II (Recommended)	
		MAT 2100 - Calculus III	
		MAT 5500 - Differential Equations	
		MAT 5600 - Linear Algebra	
ELECTIVES: ~~2~~ **1** credit sufficient to meet the required total 60 credits for the degree.	~~2~~ **1**	**ELECTIVES**: **1** credit sufficient to meet the required total 60 credits for the degree.	**1**
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 select MAT 1000	
3. A.S. Engineering Science			
HEGIS: 5609.00			
PROGRAM CODE: 87212			

FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~14~~ **13** Credits)	~~14~~ **13**	**REQUIRED CORE:** (4 Courses, ~~14~~ **13** Credits)	~~14~~ **13**
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical & Quantitative Reasoning*:	~~04~~ **3**	Mathematical & Quantitative Reasoning*:	**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	~~04~~ **3**	MAT 1500 – Calculus I	**3**
Life and Physical Sciences*: CHM 1100 - General Chemistry I	4	Life and Physical Sciences*: CHM 1100 - General Chemistry I	4
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	**FLEXIBLE CORE:** (6 Courses, 20 Credits)	20
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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
~~MAT 1600 - Calculus II~~			
CHM 1200 - General Chemistry II		CHM 1200 - General Chemistry II	
		PHY 1300 – Advanced General Physics I	
DEPARTMENT REQUIREMENTS (9 **- 12** Courses, ~~32~~ **28 - 37** Credits)	~~32~~ **28-37**	**DEPARTMENT REQUIREMENTS** (9 **- 12** Courses, **28 - 37** Credits)	**28-37**
~~MAT 2100 – Calculus III~~	~~04~~		
~~MAT 5500 – Differential Equations~~	~~3~~		
~~MAT 5600 – Linear Algebra~~	~~3~~		
~~CS 1200 – Introduction to Computing~~	~~04~~		
~~PHY 1300 – Advanced General Physics I~~	~~04~~		
~~PHY 1400 – Advanced General Physics II~~	~~04~~		
~~EGR 2100 – Engineering Design~~	~~3~~		
~~EGR 2200 – Introduction to Electrical Engineering~~	~~3~~		

~~EGR 2300 – Introduction to Engineering Thermodynamics~~	~~3~~		
		Additional Physical Sciences Requirements (4 Courses, 13 Credits)	
		PHY 1400 – Advanced General Physics II	**4**
		EGR 2100 – Engineering Design	**3**
		EGR 2200 – Introduction to Electrical Engineering	**3**
		EGR 2300 – Introduction to Engineering Thermodynamics	**3**
		Additional Mathematics Requirements (5 - 8 Courses, 15 - 24 Credits)	**15 - 24**
		Select five (5) to eight (8) additional courses beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:	
		CS 1200 – Introduction to Computing	
		MAT 1000 - College Trigonometry^	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics (Recommended)	
		MAT 1500 - Calculus I (Recommended)	
		MAT 1600 - Calculus II (Recommended)	
		MAT 2100 - Calculus III	
		MAT 5500 - Differential Equations	
		MAT 5600 - Linear Algebra	
ELECTIVES: **0** ~~to 4~~ credits sufficient to meet the required total 60 credits for the degree.	**0**~~-04~~	**ELECTIVES:** **0** credits sufficient to meet the required total 60 credits for the degree.	**0**
TOTAL CREDITS: ~~66-70~~ **61** - 70	~~66 70~~ **61 - 70**	**TOTAL CREDITS:** **61** - 70	**61 - 70**
*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.		*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 select MAT 1000	
4. A.S. Physics			
HEGIS: 5619.00			
PROGRAM CODE: 01042			

FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses, ~~14~~ **13** Credits)	~~14~~ **13**	**REQUIRED CORE:** (4 Courses, **13** Credits)	**13**
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical & Quantitative Reasoning*:	4	Mathematical & Quantitative Reasoning*:	4
Mathematical and Quantitative Reasoning*:	~~04~~ **3**	Mathematical and Quantitative Reasoning*:	**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	~~04~~ **3**	MAT 1500 – Calculus I	**3**
Life and Physical Sciences*:	4	Life and Physical Sciences*:	4
CHM 1100 - General Chemistry I		CHM 1100 - General Chemistry I	
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	**FLEXIBLE CORE:** (6 Courses, 20 Credits)	20
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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
~~MAT 1600 - Calculus II~~			
CHM 1200 - General Chemistry II		CHM 1200 - General Chemistry II	
		PHY 1300 – Advanced General Physics I	
DEPARTMENT REQUIREMENTS (~~5 to 6~~ **8** Courses, ~~16 to 19~~ **26 to 27** Credits)	~~16-19~~ **26-27**	**DEPARTMENT REQUIREMENTS** (**8** Courses, **26 to 27** Credits)	**26-27**
~~PHY 1300 – Advanced General Physics I~~	~~04~~		
~~PHY 1400 – Advanced General Physics II~~	~~04~~		
~~**AND**~~			
~~Advanced Electives (8 to 11 credits):~~			

~~Select only ONE, Either~~			
~~MAT 5500 – Differential Equations (3 cars.) or~~	~~3~~		
~~MAT 5600 – Linear Algebra (3 cars.)~~	~~3~~		
~~OR~~			
~~Select only ONE, Either~~			
~~EGR 2200 – Introduction to Electrical Engineering (3 cars.) or~~	~~3~~		
~~EGR 2300 – Introduction to Engineering Thermodynamics (3 cars.)~~	~~3~~		
~~OR~~			
~~Select only ONE, Either~~			
~~EPS 3300 – Physical Geology (4 cars.) or~~	~~04~~		
~~EPS 3500 – Introduction to Astronomy (4 cars.) or~~	~~04~~		
~~EPS 3600 – Planetology: A Trip Through the Solar System (4 cars.)~~	~~04~~		
~~OR~~			
~~PHY 81XX – Independent Study (1 to 3 cars.)~~	~~1-3~~		
		Additional Physical Sciences Requirements (4 Courses, 14 Credits)	**14**
		PHY 1400 – Advanced General Physics II	**4**
		EGR 2200 – Introduction to Electrical Engineering (3 cars.) or	**3**
		EGR 2300 – Introduction to Engineering Thermodynamics (3 cars.)	**3**
		Select one (1) from the following:	
		EPS 3100 - Meteorology	
		EPS 3200 - Oceanography	
		EPS 3300 - Physical Geology	
		EPS 3500 - Introduction to Astronomy	
		EPS 3600 - Planetology: A Trip Through the Solar System	
		EPS 3800 - Introduction to Earth Science	
		Additional Mathematics Requirements (2 Courses, 6 Credits)	**6**
		Select Two (2) additional courses beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:	
		MAT 1000 - College Trigonometry^	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics (Recommended)	
		MAT 1500 - Calculus I (Recommended)	
		MAT 1600 - Calculus II (Recommended)	

		MAT 2100 - Calculus III	
		MAT 5500 - Differential Equations	
		MAT 5600 - Linear Algebra	
		Additional Science and Mathematics Electives (2 Courses, 6 - 7 Credits)	**6 -7**
		Elective Credits in CHM, CS, EGR, EPS, MAT, PHY, or SCI	
ELECTIVES: ~~7-10~~ **0 - 1**credits sufficient to meet the required total 60 credits for the degree.	~~7-10~~ **0 - 1**	**ELECTIVES: 0 - 1**credits sufficient to meet the required total 60 credits for the degree.	**0 - 1**
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 select MAT 1000	
5. A.S. Science for Forensics			
HEGIS: 5619.00			
PROGRAM CODE: 34472			
FROM:		**TO:**	
CUNY CORE	**CREDITS**	**CUNY CORE**	**CREDITS**
REQUIRED CORE: (4 Courses,~~14~~ **13** Credits)	~~14~~ **13**	**REQUIRED CORE:** (4 Courses,**13** Credits)	**13**
When Required Core Courses are specified for a category, they are required for the major		When Required Core Courses are specified for a category, they are required for the major	
ENG 1200 - English Composition I	3	ENG 1200 - English Composition I	3
ENG 2400 - English Composition II	3	ENG 2400 - English Composition II	3
Mathematical & Quantitative Reasoning*:	~~04~~ **3**	Mathematical & Quantitative Reasoning*:	**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	~~04~~ **3**	MAT 1500 – Calculus I	**3**
Life and Physical Sciences*:	4	Life and Physical Sciences*:	4
BIO 1300 - General Biology I		BIO 1300 - General Biology I	
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	**FLEXIBLE CORE:** (6 Courses, 20 Credits)	20

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.		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		A. World Cultures and Global Issues	
B. U.S. Experience In Its Diversity		B. U.S. Experience In Its Diversity	
C. Creative Expression		C. Creative Expression	
D. Individual & Society		D. Individual & Society	
E. Scientific World*:		E. Scientific World*:	
BIO 1400 - General Biology II		BIO 1400 - General Biology II	
~~MAT 1600 - Calculus II~~			
		CHM 1100 – General Chemistry I	
DEPARTMENT REQUIREMENTS (6 Courses, ~~26~~ **25** Credits)	~~26~~ **25**	**DEPARTMENT REQUIREMENTS** (6 Courses, **25** Credits)	**25**
*A cumulative grade point average of 2.50 or above, which includes BIO 1300 ~~and~~ BIO 1400, **and CHM 1100** as well as the following ~~26 credits~~ **Physical Science Courses** is required:*		*A cumulative grade point average of 2.50 or above, which includes BIO 1300 ~~and~~ BIO 1400, **and CHM 1100** as well as the following ~~26 credits~~ **Physical Science Courses** is required:*	
		Additional Physical Sciences Requirements (5 Courses, 22 Credits)	
~~**CHM 1100 – General Chemistry I**~~	~~04~~		
CHM 1200 – General Chemistry II	4	CHM 1200 – General Chemistry II	4
CHM 3100 – Organic Chemistry I	5	CHM 3100 – Organic Chemistry I	5
CHM 3200 – Organic Chemistry II	5	CHM 3200 – Organic Chemistry II	5
PHY 1300 – Advanced General Physics I	4	PHY 1300 – Advanced General Physics I	4
PHY 1400 – Advanced General Physics II	4	PHY 1400 – Advanced General Physics II	4
		Additional Mathematics Requirement (1 Course, 3 Credits)	**3**
		Select one (1) additional course beyond the Mathematical and Quantitative Reasoning (MQR) course from the following:	
		MAT 1000 - College Trigonometry^	
		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics (Recommended)	
		MAT 1500 - Calculus I (Recommended)	
		MAT 1600 - Calculus II (Recommended)	

ELECTIVES: ~~0~~ **2** credits sufficient to meet the required total 60 credits for the degree.	~~0~~ **2**	**ELECTIVES: 2** credits sufficient to meet the required total 60 credits for the degree.	**2**
Completion of MAT 1600 - Calculus II is highly recommended		**Completion of MAT 1600 - Calculus II is highly recommended**	
TOTAL CREDITS: 60	60	**TOTAL CREDITS: 60**	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.		*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 select MAT 1000	
NEW COURSES			
Department of Behavioral Sciences and Human Services			
1. PSY 4100, The Psychology of Immigration, Flexible Core, Individual and Society (Group D)			
Prerequisite: PSY 1100			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 3			
Equated Credits: N/A			
Hours: 3			
Course Description: This course examines the psychological impact of immigration and how immigrants navigate in American society. This course will provide students with a brief overview of our postcolonial history, cultural genocide in residential schools, the problem with the Model Minority Myth, developmental problems in satellite babies, stigma of mental illness among immigrant communities, the role of culture and food, living as migrant workers, the meaning of citizenship, feeling sage in an age of xenophobia, and the importance of immigrants supporting Black Lives Matter movement. Students who take this class will have a better understanding of the role of immigration and the lived experiences of immigrants, become more civically engaged in their communities, and be more culturally competent			
Department of Mathematics and Computer Science			
1. MAT 8A0 Math for Everyday			
Prerequisite: For students who are eligible for a corequisite course per CUNY Math placement guidelines and likely to benefit from some developmental support, eligibility determined as follows (1) Score 40-56 on Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math, or (2) passed MAT M100, or (3) passed a Kingsborough workshop culminating in passing the Departmental MAT M100 final exam, or (4) Appropriate corequisite designation.			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 3 **plus**			
Equated Credits: 4 equated credits			
Hours: 7			

Course Description: This course is designed to provide non-STEM students with critical-thinking and mathematical skills useful in making informed decisions on many aspects of modern life involving quantitative concepts. This course provides the qualitative reasoning skills for informed citizens to understand the world around them and to make choices affecting their lives. Topics include basic probability and risk assessment, financial math, data analysis, solution of elementary algebraic equations, modeling from data in perspective, mathematics of finance, investments and loans, statistical reasoning, probability, and risk assessment. **Students who have completed MAT 800 will not receive credit for this course.** This course is appropriate for non-STEM major students. This course is NOT intended for students planning on taking MAT 900 - College Algebra.			
2. MAT 9A0, Algebra for STEM Majors			
Prerequisite: For students who are eligible for a corequisite course per CUNY Math placement guidelines and likely to benefit from some developmental support, eligibility determined as follows (1) Score 40-56 on Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math, or (2) passed MAT M100, or (3) passed a Kingsborough workshop culminating in passing the Departmental MAT M100 final exam, or (4) Appropriate corequisite designation.			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 3 **plus**			
Equated Credits: 5 equated credits			
Hours: 8			
Course Description: A comprehensive treatment of the following: real numbers, absolute value, integer and rational exponents, polynomial operations, factoring techniques, roots and radicals, linear and quadratic equations, graphing techniques, systems of linear equations, Gaussian elimination. Introduces the study of functions in preparation for the study of pre-calculus and calculus. **Students who have completed MAT 900 will not receive credit for this course.** This course is appropriate for STEM majors.			
3. MAT 3000, Introduction to Mathematical Concepts in Proof			
Prerequisite: MAT 1400			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 1			
Equated Credits: N/A			
Hours: 2			
Course Description: This course introduces majors in mathematics to the critical skill of reading and writing formal proofs; and serves as a bridge to the more advanced mathematics they will study at the baccalaureate level and beyond. Expected topics include: basic set theory, logic counting principles, direct proof, contrapositives, contradictions, non-conditionals, counterexamples, induction, relations, functions, and cardinality.			
Department of Physical Sciences			
PSQ XXXX, Quantitative Skills for Physical Sciences			
Prerequisite: None			
Corequisite: CHM11 Skills Proficient, PHY1100 Skills Proficient, PHY1300 Skills Proficient, PHY1400 Skills Proficient, EGR2200 Skills Proficient, or EGR2300 Skills Proficient determination. Contact Department of Physical Sciences for Skills Proficient information			
Pre/Co-requisite: None			
Credits: 0			
Equated Credits: 1			
Hours: 2hrs for 12 weeks for 3 modules of 4 weeks each			
1. PSQ 0101			

Course Description: A co-requisite support module in the basic skills of algebra required in the physical sciences. This course is non crediting bearing and is not equivalent to any MAT course			
2. PSQ 0102			
Course Description: A co-requisite support module in the basic skills of geometry required in the physical sciences. This course is non crediting bearing and is not equivalent to any MAT course.			
3. PSQ 0103			
Course Description: A co-requisite support module in the basic skills of trigonometry required in the physical sciences. This course is non crediting bearing and is not equivalent to any MAT course			
4. PSQ 0201			
Course Description: A co-requisite support module in the basic skills of vector products required in the physical sciences. This course is non crediting bearing and is not equivalent to any MAT course.			
5. PSQ 0301			
Course Description: A co-requisite support module in the basic skills of differential calculus required in the physical sciences. This course is non crediting bearing and is not equivalent to any MAT course			
6. PSQ 0302			
Course Description: A co-requisite support module is a continuation of the basic skills of differential calculus required in the physical sciences. This course is non crediting bearing and is not equivalent to any MAT course			
7. PSQ 0401			
Course Description: A co-requisite support module in the basic skills in integral calculus required in the physical sciences. This course is not equivalent to any MAT			
8. PSQ 0501			
Course Description: A co-requisite support module in the basic skills in series expansion required in the physical sciences. This course is not equivalent to any MAT.			
9. PSQ 0601			
Course Description: A co-requisite support module in the basic skills in linear algebra required in the physical sciences. This course is not equivalent to any MAT			
10. PSQ 0701			
Course Description: A co-requisite support module in the basic skills in differential equations required in the physical sciences. This course is not equivalent to any MAT			
COURSES FOR PATHWAYS APPROVAL			
Department of Behavioral Sciences and Human Services			
1. PSY 4100, The Psychology of Immigration, Flexible Core, Individual and Society (Group D)			

Department of Mathematics and Computer Science			
1. MAT 8A0**,** Math for Everyday, Required Core, Mathematical and Quantitative Reasoning (MQR)			
2. MAT 9A0, Algebra for STEM Majors, Required Core, Mathematical and Quantitative Reasoning (MQR) and Flexible Core, Scientific World (Group E)		**STEM Variant (required for degree) does not need Pathways submission**	
CHANGES IN EXISTING COURSES			
Department of Art			
Change: Course Title			
1. ART 5500, Design I			
FROM:		**TO:**	
Design I		Design **Foundations**	
2. ART 5600, Design II			
FROM:		**TO:**	
Design II		**3-Dimenstional Design**	
3. ART 7400, Experimental Typography			
FROM:		**TO:**	
Experimental Typography		**Typography**	
Departmet of Business			
Change: Prerequisite			
1. BF 3500 Textile and Non-Textile Analysis			
FROM:		**TO:**	
Prerequisite(s): RM 3100 or BF 3100		Prerequisite(s): RM 3100 or BF 3100. **RM 3100 or BF 3100 Not required for Fashion Design Majors**	
Department of Health, Physical Education, and Recreation			
Change: Course Title and Description			
1. RPE 1100, Introduction to Recreation			
FROM:		**TO:**	
Introduction to Recreation		Introduction to Recreation **and Physical Education**	
FROM:		**TO:**	

Historical and philosophical foundations of recreation and leisure, study of institutions providing recreation services, and the socio-economic factors which influence the growth and development of recreation.		**Explore historical and philosophical foundations of recreation/recreation therapy and physical education and the study of the variety of organizations that provide those programs. Examine topics that include an analysis of play, games, sport and fitness as related to the development of personal interests among clients and students.**	
2. RPE 1200, Leadership in Recreation and Physical Education			
FROM:		**TO:**	
Leadership in Recreation and Physical Education		Leadership in Recreation, Physical Education**, and Sport Management**	
FROM:		**TO:**	
Leadership, supervision, group dynamics, and proper teaching techniques in leisure services. Additional topics include conflict resolution, behavior management, values and ethics, and risk management		**Learn various leadership styles, supervision, group dynamics, and proper teaching techniques. Additional topics include conflict resolution, behavior management, values and ethics, and risk management. Examines professional organizations in physical education teaching, recreation and recreation therapy, and sport management.**	
3. RPE 1400, Outdoor Recreation			
FROM:		**TO:**	
Outdoor Recreation		**Camping and** Outdoor Recreation	
FROM:		**TO:**	
Trends in outdoor recreation, place of the recreation leader in outdoor programs, scope and extent of programs in conservation, camping, aquatics and nature. Weekend camping trip required.		**Explore trends in outdoor recreation, the role of the recreation leader, the scope and extent of programs in conservation, camping, and nature. A weekend 24 hour faculty supervised camping and hiking trip is required, as well as participation in two 4 hour training and preparation sessions, prior to camping outdoors. Small group work is organized to accomplish assignments. Individual journals and a final paper reflecting their experiences are required.**	
4. RPE 7000, Methods of Teaching Fitness and Recreation Activities			
FROM:		**TO:**	
Methods of Teaching Fitness and Recreation Activities		**Introduction to Teaching Methods in Physical Education**	

FROM:		**TO:**	
Develop techniques, methods, skills and philosophy required to teach fitness and recreation activities.		**Develop and execute a lesson plan for an activity, using the New York State Learning Standards for Physical Education, while receiving feedback from peers and instructor. Examine curriculum and instruction in physical education, the role and function of professional organizations, and develop a personal philosophy of physical education.**	
Change: Course Title, Description and Prerequisite:			
5. RPE 3200, Organization and Administration of Recreation Programs			
FROM:		**TO:**	
Organization and Administration of Recreation Programs		Organization and Administration of Recreation**, Physical Education, and Sport Management**	
FROM:		**TO:**	
Underlying principles for effective recreation programming, considers operation of recreation facilities, including budget, public relations, records, reports, equipment and evaluation.		**Examine the principles of organization and administration of recreation, physical education, sport program and facilities. Focuses on developing effective programming inclusive of: a mission statement/goals/objectives, needs assessment, facility planning, program implementation and evaluation, learn effective communication, and address budget, public relations, risk management/safety, and personnel/supervision issues. Requirement to attend two college wide events and evaluate one as an operations manager.**	
FROM:		**TO:**	
Prerequisite(s): RPE 1100, RPE 1200, RPE 1600, and RPE 3100. For Program Majors only.		**Prerequisite(s): RPE 1100, RPE 1200, and RPE 3100. RPE 3100 Not required for Sports Management students**	
Prerequisite(s)/Corequisite(s): RPE 9152		Prerequisite(s)/Corequisite(s): RPE 9152	
6. RPE 9152, Field Experience in Physical Education, Recreation, and Recreation Therapy			
FROM:		**TO:**	
Field Experience in Physical Education, Recreation, and Recreation Therapy		Field Experience in Physical Education, Recreation/Recreation Therapy**, Sport Management**	
FROM:		**TO:**	

Students are assigned to supervised field work in a variety of community recreation agency settings. One-hour seminar, field reports and class discussions of the experiences are included.		**Experience and complete 100 hours of supervised fieldwork in either a public or private school physical education program, community recreation setting, or therapeutic recreation program. A weekly one-hour seminar covers diversity, leadership, ethics and values, assessment, and development of resume/cover letter. Works in small teams to develop, implement, and evaluate a student run activity. Maintain reflective logs of experiences throughout the semester.**	
FROM:		**TO:**	
Prerequisite(s): RPE 1100, RPE 1200, RPE 1600, and RPE 3100. For Program Majors only.		**Prerequisite(s): RPE 1100, RPE 1200, and RPE 3100. RPE 3100 Not required for Sports Management students**	
Prerequisite(s)/Corequisite(s): RPE 3200		Prerequisite(s)/Corequisite(s): RPE 3200	
Change: Course Description			
7. HPE 1500, Fitness Assessment and Prescription			
FROM:		**TO:**	
Principles of physical fitness are taught. Students undergo a battery of fitness tests and develop a personal fitness program.		**Learn principles of physical fitness. Complete a variety of fitness tests and create a personal fitness program including aerobic and anaerobic activities. Develop muscular strength and endurance; improve body composition, cardiovascular fitness, and flexibility. Learn the variety of tools/equipment to achieve physical fitness.**	
8. PEC 200, Walk, Jog, Run			
FROM:		**TO:**	
Introduction to the principles and practices for assessing and improving cardiovascular fitness.		**Examine the principles and practices for assessing and improving cardiovascular fitness. Design a personal cardiovascular fitness program and receive individualized instruction. Learn to use proper progression to improve aerobic fitness**	
9. PEC 400, Training with Weights			
FROM:		**TO:**	

Study of weight training techniques to increase muscle strength and endurance in relation to various sports activities and to improve physical appearance.		**Learn weight training techniques to increase muscle strength and endurance for a specific sport activity and/or improve overall physical fitness. Learn proper progression and design a weight training program to suit personal needs.**	
10. PEC 1200, Tennis 3			
FROM:		**TO:**	
Introduction to intermediate tennis skills: the lob, mid- court volley, flat and slice serves, ball spin, and use of offensive strategy in competition.		**Introduction to intermediate tennis skills: top spin, slice, attacking the net, offensive and defensive strategy in competition. Apply tennis skills in single and doubles game situations.**	
11. PEC 1500, Badminton			
FROM:		**TO:**	
Basic skills play, knowledge of rules, offensive and defensive strategy.		**Learn to play badminton, knowledge of rules, and offensive and defensive strategy. Learn badminton skills: serving, underhand, backhand, overhead, drop shot, smash, and racquet grip. Learn singles and doubles game play.**	
12. PEC 1900, Aerobic Dance			
FROM:		**TO:**	
A fitness program that combines vigorous calisthenics exercises with dance steps to music for improved cardiovascular endurance, muscles toning and flexibility.		**Learn vigorous calisthenics exercises with dance steps to music to improve cardiovascular endurance and muscle toning. Apply aerobic activities for health and wellness, boost mood, burn calories, and improve body composition and flexibility.**	
13. RPE 1300, Social Recreation			
FROM:		**TO:**	
How to conduct, plan and program social recreation activities in camps, centers, clubs, institutions and playgrounds. Under supervision, leadership is developed and performance evaluated.		**Learn to assess, plan, implement, and evaluate an inclusive social recreation activity in camps, recreation centers, clubs, healthcare facilities, and playgrounds. Under supervision, opportunities are provided to develop leadership skills in recreation. Develop, implement, and evaluate an activity protocol. Learn special even planning, group dynamics, and effective teaching techniques.**	

14. RPE 3100, Therapeutic Recreation for Individuals with Disabilities I			
FROM:		**TO:**	
The philosophy and history of Therapeutic Recreation (TR). The physical, social and psychological barriers to access as well as the principles of normalization and inclusion. An emphasis on the TR process and provision of a continuum of services based on clients' needs. Students learn how to adapt activities (e.g., aquatics, arts and crafts, dance) to meet the needs, interests and abilities of individuals with specific disabilities.		**Learn the philosophy and history of Therapeutic Recreation (TR). Explore accessibility barriers as well as the principles of normalization and inclusion for individuals with special needs. An emphasis on the TR process and provision of a continuum of services based on clients' needs. Examine principles of adapting activities and environments to meet the needs, interests and abilities of individuals with physical and/or development disabilities. Attend one filed observation in a setting for individuals with special needs.**	
15. RPE 3500, Therapeutic Recreation for Individuals with Disabilities II			
FROM:		**TO:**	
The biopsychosocial approach to understanding the later part of the lifespan and the contribution leisure and recreation make to quality of life. A continuum of services in a range of settings is examined. Students acquire an understanding of normal and abnormal psychological and emotional development. Students learn how to plan recreation programs to meet the needs of the elderly and those with emotional/psychological disorders.		**Examine the biopsychosocial approach to the later part of the lifespan and the contribution leisure and recreation make to quality of life. Acquire an understanding of normal and abnormal psychological and emotional development. Learn to plan recreation programs that meet the needs of the seniors and those with emotional/psychological disorders in both clinical and community settings. Attend one clinical field observation.**	
16. RPE 3600, Assessment Process in Therapeutic Recreation			
FROM:		**TO:**	
Through clinical case simulations and analysis of videotaped interviews with patients, students will gain competency developing individualized treatment goals for patients. Practice in observation, reporting and writing various types of documentation, including parts of the MDS (Minimum Data Set) Plus and other assessments. Assessment as it applies to Long Term Care and Psychiatric populations will also be covered in the course.		**Gain competency in using assessment tools in behavioral observation of clinical case simulations and analysis of video interviews with individuals that have special needs. Explore various Therapeutic Recreation models of practice for use in clinical and community based settings. Learn principles and practices of developing individualized treatment plans based on assessment data. Study methodology for completing an activity and developing a program protocol.**	

17. RPE 4000, Sport and American Society			
FROM:		**TO:**	
The development of selected sports as well as related contemporary and controversial issues in America approached from a sociological point of view. Additional topics include economic and media influences, and future trends.		**Explore the significant interrelationship of sport in American society and internationally. Apply sociological theories of functionalist, conflict, critical, and interactionist to study sport in society. Discuss contemporary and controversial issues inclusive of gender equity, drug use, youth sport, and race. Study the symbiotic relationship of sport, business, economy, and media.**	
18. RPE 4600, Facilities Planning in Sports			
FROM:		**TO:**	
The principles, guidelines and recommendations for planning, constructing, using and maintaining sports facilities.		**Learn principles, guidelines and recommendations for planning, constructing, using and maintaining sports facilities. Explore financing, public and private partnerships, Americans with Disabilities Act, and risk management in sport facilities. Study crowd and emergency management, facility alcohol plan, concession and box office operations.**	
Department of Mathematics and Computer Science			
Change: Course Description			
1. MAT 4A0, Math and Quantitative Reasoning			
FROM:		**TO:**	
This course enhances students' quantitative reasoning and mathematical skills useful in solving problems in mathematics and in other fields of study. Students learn to communicate solutions to mathematical problems in written and oral form. Topics include mathematical modeling, financial mathematics, units, percentages and statistical reasoning.		This course enhances students' quantitative reasoning and mathematical skills useful in solving problems in mathematics and in other fields of study. Students learn to communicate solutions to mathematical problems in written and oral form. Topics include mathematical modeling, financial mathematics, units, percentages and statistical reasoning. **Students who have completed MAT 500 will <u>not</u> receive credit for this course. This course is intended for Non-STEM majors. This course is NOT intended for students planning on taking MAT 900 - College Algebra.**	
2. MAT 800, Practical Math for Today's World			
FROM:		**TO:**	

Critical-thinking and mathematical skills useful in making informed decisions on many aspects of modern life involving quantitative concepts. Topics include logical analysis and inference, mathematics of finance, statistical reasoning and probability.		Critical-thinking and mathematical skills useful in making informed decisions on many aspects of modern life involving quantitative concepts. Topics include logical analysis and inference, mathematics of finance, statistical reasoning and probability. **Students who have completed MAT 8A0 will not receive credit for this course. This course is intended for Non-STEM majors. This course is NOT intended for students planning on taking MAT 900 - College Algebra.**	
3. MAT 900, College Algebra			
FROM:		**TO:**	
A comprehensive treatment of the following: real numbers, absolute value, integer and rational exponents, polynomial operations, factoring techniques, roots and radicals, linear and quadratic equations, graphing techniques, systems of linear equations, and Gaussian elimination. Introduces the study of functions in preparation for the study of pre-calculus. Demonstration of proficiency in subject matter via departmental final exam is required for successful completion.		A comprehensive treatment of the following: real numbers, absolute value, integer and rational exponents, polynomial operations, factoring techniques, roots and radicals, linear and quadratic equations, graphing techniques, systems of linear equations, and Gaussian elimination. Introduces the study of functions in preparation for the study of pre-calculus. Demonstration of proficiency in subject matter via departmental final exam is required for successful completion. **Students who have completed MAT 9A0 will <u>not</u> receive credit for this course.**	
Change: Prerequisite and Course Description			
4. MAT 500, Introduction to Mathematical Thought			
FROM:		**TO:**	
This course emphasizes quantitative reasoning skills for informed citizens to understand the world around them. Topics include basic probability, data analysis, solution of elementary Algebraic equations, word problems and modeling data. This course is intended for Non-STEM majors. This course is NOT intended for students planning on taking MAT 900 - College Algebra		This course emphasizes quantitative reasoning skills for informed citizens to understand the world around them. Topics include basic probability, data analysis, solution of elementary Algebraic equations, word problems and modeling data. **Students who have completed MAT 4A0 will <u>not</u> receive credit for this course.** This course is intended for Non-STEM majors. This course is NOT intended for students planning on taking MAT 900 - College Algebra	
FROM:		**TO:**	

Prerequisite(s): (1) Score of 40-56 on the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math or (2) passed MAT M100 or (3) passed a Mathematics Department workshop culminating in passing the Departmental MAT M100 final exam		**Prerequisite(s): For students who are eligible for a corequisite course per CUNY Math placement guidelines and likely to benefit from some developmental support, eligibility determined as follows:** (1) Score of 40-56 on the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math or (2) passed MAT M100 or (3) passed a Mathematics Department workshop culminating in passing the Departmental MAT M100 final exam **or (4) Appropriate corequisite designation.**	
Change: Prerequisite			
5. MAT 1000, Trigonometry			
FROM:		**TO:**	
Prerequisite(s): MAT 900		Prerequisite(s): MAT 900 **or MAT 9A0**	
6. MAT 1100, Finite Mathematics			
FROM:		**TO:**	
Prerequisite(s): MAT 900		Prerequisite(s): MAT 900 **or MAT 9A0**	
7. MAT 1300, Survey of Mathematics and Computer Concepts			
FROM:		**TO:**	
Prerequisite(s): (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55 or higher on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math, or (2) Successful completion of Pre-Algebra and a grade of 45 or higher on the Elementary Algebra portion of the CUNY Mathematics Skills Test (COMPASS), or (3) Successful completion of Pre-Algebra and successful completion of a Kingsborough Math MAT M200 workshop culminating in a grade of 88 or higher on the CEAFE exam, or (4) Successful completion of Pre-Algebra and an "S" grade in MAT M200 taken at Kingsborough; or (5) MAT R300		Prerequisite(s): **(1)** MAT R300 **or (2)** Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a **minimum** score of 55 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math	
8. MAT 19A0, Statistics and Probability in Today's World			
FROM:		**TO:**	

Prerequisite(s): (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55 or higher on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math, or (2) Successful completion of Pre-Algebra and a grade of 45 or higher on the Elementary Algebra portion of the CUNY Mathematics Skills Test (COMPASS), or (3) Successful completion of Pre-Algebra and successful completion of a Kingsborough Math MAT M200 workshop culminating in a grade of 88 or higher on the CEAFE exam, or (4) Successful completion of Pre-Algebra and an "S" grade in MAT M200 taken at Kingsborough; or (5) MAT R300		Prerequisite(s): **(1)** MAT R300 **or (2)** Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a **minimum** score of 55 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math	
9. BIO/MAT 9100, Biostatistics			
FROM:		**TO:**	
Prerequisite(s): MAT 900		Prerequisite(s): MAT 900 **or MAT 9A0**	
Change: Prerequisite and Credit/Hours			
10. MAT 1400, Analytic Geometry & Pre-Calculus			
FROM:		**TO:**	
4 credits, 4 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
FROM:		**TO:**	
Prerequisite(s): MAT 900		Prerequisite(s): MAT 900 **or MAT 9A0**	
Change: Credits/Hours			
11. CS 1200, Introduction to Computing			
FROM:		**TO:**	
4 credits, 4 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
12. CS 3500, Discrete Structures			
FROM:		**TO:**	
4 credits, 5 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
13. CS 3700, Data Structures			
FROM:		**TO:**	
4 credits, 4 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
14. MAT 1500, Calculus I			
FROM:		**TO:**	

4 credits, 4 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
15. MAT 1600, Calculus II			
FROM:		**TO:**	
4 credits, 4 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
16. MAT 2100, Calculus III			
FROM:		**TO:**	
4 credits, 4 hours		**3 credits, 4 hours (2 hours lecture, 2 hours lab)**	
Department of Physical Sciences			
Change: Pre-/Co-requisites:			
1. CHM 100, Review of General Chemistry			
FROM:		**TO:**	
Prerequisite(s)/Corequisite(s): MAT 900		Prerequisite(s)/Corequisite(s): MAT 900 **or MAT 9A0, or Department Permission**	
2. CHM 200, Introduction to Green Chemistry			
FROM:		**TO:**	
Prerequisite(s)/Corequisite(s): MAT 900		Prerequisite(s)/Corequisite(s): MAT 900 **or MAT 9A0, or Department Permission**	
3. PHY 100, Preview of General Physics			
FROM:		**TO:**	
		Prerequisite: MAT 900 or MAT 9A0	
Prerequisite(s)/Corequisite(s): MAT 900		Prerequisite(s)/Corequisite(s): **NONE**	
4. PHY 1300, Advanced General Physics I			
FROM:		**TO:**	
Prerequisite(s)/Corequisite(s): MAT 1500		Prerequisite(s)/Corequisite(s): MAT 1500; **OR PHY 1300 Skills Proficient; OR Department Permission. Contact Department of Physical Sciences for PHY 1300 Skills Proficient information**	
5. PHY 1400, Advanced General Physics II			
FROM:		**TO:**	
Prerequisite(s): PHY 1300		Prerequisite(s): PHY 1300	

Prerequisite(s)/Corequisite(s): MAT 1600		Prerequisite(s)/Corequisite(s): MAT 1600 **OR PHY1400 Skills Proficient; OR Department Permission. Contact Department of Physical Sciences for PHY 1400 Skills Proficient information**	
Change: Prerequisite			
6. CHM 1100, General Chemistry I			
FROM:		**TO:**	
Prerequisite(s): MAT 900 or a passing score on the ACCUPLACER CUNY Assessment Test in Math or completion of developmental mathematics and either CHM 100 or CHM 200, or passing score on chemistry exemption exam. Contact Department for Chemistry Exemption Exam information.		Prerequisite: MAT 900 **or MAT 9A0 and** CHM 100; **OR CHM 1100 Skills Proficient; OR Department Permission. Contact Department of Physical Sciences for CHM 1100 Skills Proficient information.**	
7. CHM 1200, General Chemistry II			
FROM:		**TO:**	
Prerequisite(s): CHM 1100		Prerequisite: CHM 1100; **OR Department Permission**	
8. CHM 3100, Organic Chemistry I			
FROM:		**TO:**	
Prerequisite(s): CHM 1200		Prerequisite: CHM 1200; **OR Department Permission**	
9. CHM 3200, Organic Chemistry II			
FROM:		**TO:**	
Prerequisite(s): CHM 3100		Prerequisite: CHM 3100; **OR Department Permission**	
10. EPS 3100, Meteorology			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math or Department permission		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
11. EPS 3200, Oceanography			
FROM:		**TO:**	

Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math or Department permission		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
12. EPS 3300, Physical Geography			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math or Department permission		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
13. EPS 3500, Introduction to Astronomy			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math or Department permission		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
14. EPS 3600, Planetology: A Trip Through the Solar System			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math or Department permission		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
15. EPS 3800, Introduction to Earth Science			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math or Department permission		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
16. PHY 1100, General Physics I			
FROM:		**TO:**	
Prerequisite(s): MAT 1400		Prerequisite(s): **NONE**	
		Prerequisite(s)/Corequisite(s) MAT 1400; OR PHY 1100 Skills Proficient; OR Department Permission. Contact Department of Physical Sciences for PHY 1100 Skills Proficient information.	
17. PHY 1200, General Physics II			

FROM:		**TO:**	
Prerequisite(s): PHY 1100		Prerequisite(s): PHY 1100 **OR Department Permission**	
18. PHY 4200, Ideas of Modern Physics			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
19. SCI 3700 - Developments in the Physical Sciences (with Laboratory)			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
20. SCI 5100, Physical Sciences and the Environment (with Laboratory)			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
21. SCI 7000 - The Science of Nutrition (with Laboratory)			
FROM:		**TO:**	
Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading, Writing, and ACCUPLACER CUNY Assessment Test in Math		Prerequisite: **CUNY English & Math Proficient; OR Department Permission**	
Change: Prerequisite and Corequisite:			
22. EGR 2100, Engineering Design			
FROM:		**TO:**	

Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading and Writing and MAT 900		Prerequisite(s): Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading and Writing and MAT 900 **or MAT 9A0**	
Corequisite(s): MAT 1400		**Corequisite: NONE**	
		Prerequisite(s)/Corequisite(s): MAT 1400; OR Department Permission	
23. EGR 2200, Introduction to Electrical Engineering			
FROM:		**TO:**	
Prerequisite(s): MAT 2100 and PHY 1400		Prerequisite: **PHY 1400 OR Department Permission**	
Corequisite(s): MAT 5500		Corequisite(s): **NONE**	
		Prerequisite(s)/Corequisite(s): MAT 5500 and MAT 5600; OR EGR 2200 Skills Proficient, OR Department Permission. Contact Department of Physical Sciences for EGR2200 Skills Proficient information.	
24. EGR 2300, Introduction to Engineering Thermodynamics			
FROM:		**TO:**	
Prerequisite(s): CHM 1200 and PHY 1400		Prerequisite: CHM1200 and **PHY130**0 **and MAT1600**; **OR EGR 2300 Skills Support; OR Department Permission. Contact Department of Physical Sciences for EGR 2300 Skills Proficient information.**	
Corequisite(s): CS 1200		Corequisite(s): **NONE**	
COURSES WITHDRAWN			
Department of Mathematics and Computer Science			
1. MAT 600, Mathematics of Finance			
INFORMATIONAL GUIDELINES FOR THE COMMITTEE			
1. Clarify General Education Learning Outcomes based on Middle States			
2. Civic Engagement Sub-Committee			