KINGSBOROUGH COMMUNITY COLLEGE

Curriculum Committee Meeting

Thursday, May 3, 2018 2:00 P.M. – 4:00 P.M.

President's Conference Room A-226

	MINUTE	S	
Members Attending:			
Michael Barnhart (HIS)		Jeffrey Lax (BUS)	
Anthony Borgese (TAH)		Edward Martin (Chair)	
Mary Dawson (BIO & Secy)		Michael Miranda (BEH)	
John Descarfino (ART)		Josephine Murphy (LIB)	
Eileen Ferretti (ENG)		Rina Yarmish (MAT)	
Kieren Howard (PHY)		Joanne Russell (Provost)	
Oon Hume (HEA)		Gordon Young (COM)	
Austin Robinson (Student)			
Members Absent:			
Alfonso Garcia-Osuna (FOR)			
Bridget Weeks (NUR)			
Olivia Bonneau (Student)			
Nia-Renee Fecu (Student)			
Norman Wagstaffe (Student)			
Guests:			
Amanda Kalin			
John Mikalopas (PHY)			
Sinu Jacob (Fin. Aid)			
Shoshana Friedman (MAT)			
Daniel Collins (MAT)			
Jane Wiess (ENG)			
Meeting called to order at 2:05pm by Chair Martin. All items	S APPRO	/ED UNANIMOUSLY.	
Program Learning Outcomes (Informational Item)			
Department of Mathematics and Computer Science			
1. A.S. Mathematics			
SPECIAL ACTIONS			

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CURRICULUM COMMITTEE: The committee members			
voted unanimously to reduce the college-wide CIVIC			
ENGAGEMENT requirement in ALL degrees from 2 civic			
engagement experiences to 1.			
CHANGE IN DEGREE REQUIREMENT			
A. Department of Behavioral Sciences & Human Services			
2 A.S. Early Childhood Education/Child Care			
Removal of reference to CSI Articulation Agreement			
(Informational Item)			
FROM:		TO:	
DECDEE DECLUIDEMENTS: (0 Courses 24 Crodita)		DECDEE DECILIDEMENTS: (0 Courses 24 Credite)	
DEGREE REQUIREMENTS: (9 Courses, 24 Credits)		DEGREE REQUIREMENTS: (9 Courses, 24 Credits)	
PSY 2400 – Psychological Disorders in Young Children OR		PSY 2400 – Psychological Disorders in Young Children OR	
For transfer to The College of Staten Island - HIS 7000 –	3	HIS 7000 – Historical Geography	3
Historical Geography			
Change in Degree Requirements			
1. A.S. Education Studies			
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 12 Credits)	12	REQUIRED CORE: (4 Courses, 12 Credits)	12
When Required Core courses are specified for a category,		When Required Core courses are specified for a category,	
they are strongly suggested and/or required for the major		they are strongly suggested and/or required for the major	
ENG 1200 Composition I	3	ENG 1200 Composition I	3
ENG 2400 Composition II	3	ENG 2400 Composition II	3
± Mathematical & Quantitative Reasoning	3	± Mathematical & Quantitative Reasoning	3
± Life and Physical Sciences	3	± Life and Physical Sciences	3
FLEXIBLE CORE: (6 Courses, 18 Credits)	18	FLEXIBLE CORE: (6 Courses, 18 Credits)	18
When Flexible Core courses are specified for a category,		When Flexible Core courses are specified for a category,	
they are strongly suggested and/or required for the major		they are strongly suggested and/or required for the major	
			I
One course from each Group A to E. and one (1) additional		One course from each Group A to E. and one (1) additional	

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	
SOC 3100 – Introduction to Sociology		SOC 3100 – Introduction to Sociology	
PSY 3000 – Child and Adolescent Development		PSY 3000 – Child and Adolescent Development	
± E. Scientific World		± E. Scientific World	
Suggested: PSY 1100 – General Psychology		PSY 1100 – General Psychology	
± Plus another course selected from any Group A – E		± Plus another course selected from any Group A – E	
DEGREE REQUIREMENTS: (8 Courses, 23 Credits)		DEGREE REQUIREMENTS : (8 Courses, 23 Credits)	
EDC 200 – Social Foundations of Education	3	EDC 200 – Social Foundations of Education	3
EDC 2200 – Art Workshop in Education	3	EDC 2200 – Art Workshop in Education	3
EDC 2300 – Music and Movement Workshop in Education	2	EDC 2300 – Music and Movement Workshop in Education	2
EDC 90A4 – Practicum in Teacher Development I	3	EDC 90A4 – Practicum in Teacher Development I	3
Liberal Arts Elective — One Course from Groups A to E	3	PSY 1100 - General Psychology	3
PSY 2400 – Psychological Disorders in Young Children		PSY 2400 – Psychological Disorders in Young Children	3
, ,		, , ,	
PSY 3000 – Child and Adolescent Development	3	PSY 3000 – Child and Adolescent Development	3
SOC 3100 – Introduction to Sociology	3	SOC 3100 – Introduction to Sociology	3
Select one (1) of the following concentrations:		Select one (1) of the following concentrations:	
BIRTH – 2ND GRADE (2 Courses, 6 Credits)		BIRTH – 2ND GRADE (2 Courses, 6 Credits)	
EDC 3200 – Infant/Toddler Development	3	EDC 3200 – Infant/Toddler Development	3
EDC 4000 – Educational Practices for Early Language and Literacy Development	3	EDC 4000 – Educational Practices for Early Language and Literacy Development	3
, .		· ·	
<u>OR</u>		<u>OR</u>	
1ST – 6TH GRADE: (3 Courses, 7 Credits)	7	1ST – 6TH GRADE: (3 Courses, 7 Credits)	7
EDC 3100 – Social Science in Childhood Education	3	EDC 3100 – Social Science in Childhood Education	3
SOC 3200 – Urban Sociology	3	SOC 3200 – Urban Sociology	3
HUM 8181 – Development of Literacy in Children	1	HUM 8181 – Development of Literacy in Children	1
, , , , , , , , , ,		1	
ELECTIVES: 0 12 credits sufficient to total 60 credits for	0 -12	ELECTIVES: 1- 12 credits sufficient to total 60 credits for the	1 - 12
the degree.		degree.	
TOTAL CREDITS: 60	60	TOTAL CREDITS: 60	60

B. Department of Biology			
Change in Degree Requirements			
1. A.S. Biology			
3,			
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 14 Credits)	14	REQUIRED CORE: (4 Courses, 13 Credits)	13
When Required Core Courses are specified for a category,		When Required Core Courses are specified for a category,	
they are required for the major		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*:	3
MAT 1400 - Analytic Geometry and Pre-Calculus Math		MAT 900 - College Algebra	
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	
CHM 1100 – General Chemistry		MAT 1400 - Analytic Geometry and Pre-Calculus Mathematics	
DEPARTMENT REQUIREMENTS (2 Courses, 7 to 8-		DEPARTMENT REQUIREMENTS (3 Courses, 11 to 12	
Credits)		Credits)	
		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 crs) or		CP 1100 - Introduction to Computers and Computer Applications (4 crs) or	4 - 3
BIO/CIS 6000 – Computer Applications in Bioinformatics (3 crs.)		BIO/CIS 6000 – Computer Applications in Bioinformatics (3 crs.)	

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 crs.) or		BIO 2100 - Comparative Anatomy (4 crs.) or	
BIO 2200 - Developmental Biology (4 crs.) or		BIO 2200 - Developmental Biology (4 crs.) or	
BIO 5000 - General Microbiology (4 crs.) or		BIO 5000 - General Microbiology (4 crs.) or	
BIO 5200 - Marine Biology (4 crs.) or		BIO 5200 - Marine Biology (4 crs.) or	
BIO 5300 - Ecology (4 crs.) or		BIO 5300 - Ecology (4 crs.) or	
BIO 5800 - Recombination DNA Technology (4 crs.) or		BIO 5800 - Recombination DNA Technology (4 crs.) or	
BIO 5900 – Genetics (4 crs.) or		BIO 5900 – Genetics (4 crs.) or	
BIO 6500 - Molecular and Cellular Biology (4 crs.)		BIO 6500 - Molecular and Cellular Biology (4 crs.)	
BIO 0500 - Molecular and Cellular Biology (4 crs.)		BIO 0500 - Molecular and Cellular Biology (4 cis.)	
<u>OR</u>		<u>OR</u>	
Allied Health Transfer (2 Courses, 8 Credits):		Allied Health Transfer (2 Courses, 8 Credits):	
BIO 1100 - Human Anatomy and Physiology I (4 crs.)		BIO 1100 - Human Anatomy and Physiology I (4 crs.)	
BIO 1200 - Human Anatomy and Physiology II (4 crs.)		BIO 1200 - Human Anatomy and Physiology II (4 crs.)	
ELECTIVES: 10 - 11 credits sufficient to meet the required total 60 credits for the degree.	10-11	ELECTIVES: 7 - 8 credits sufficient to meet the required total 60 credits for the degree.	7 - 8
Allied Health Transfer Option, Suggested Elective:		Allied Health Transfer Ontion, Compacted Floatings	
		Allied Health Transfer Option, Suggested Elective:	
BIO/MAT 9100 – Biostatistics (4 crs.)		BIO/MAT 9100 – Biostatistics (4 crs.)	
Transfer to a Physician Assistant Program, Suggested Elective:		Transfer to a Physician Assistant Program, Suggested Elective:	
BIO 5100 – Microbiology in Health and Disease (4 crs.)		BIO 5100 – Microbiology in Health and Disease (4 crs.)	
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.	
D. Department of Mathematics and Computer Science			
Change in Degree Requirements			
1. A.S. Computer Science			
FROM:	1	TO:	
FROW.		jiu.	

CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 43-Credits)	13	REQUIRED CORE: (4 Courses, 12 Credits)	12
When Required Core Courses are specified for a category,		When Required Core Courses are specified for a category,	
they are required for the major		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*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I ^	
Life and Physical Sciences:	3	Life and Physical Sciences:	3
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	FLEXIBLE CORE: (6 Courses,19 Credits)	19
When Flexible Core Courses are specified for a category,		When Flexible Core Courses are specified for a category,	
they are required for the major. One course from each		they are required for the major. One course from each	
Group A to D (Group E is satisfied by the courses shown).		Group A to D (Group E is satisfied by the courses shown).	
No more than two courses can be selected from the same		No more than two courses can be selected from the same	
discipline.		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	4	MAT 1600 - Calculus II	3
CS 1200 - Introduction to Computing	4	CS 1200 - Introduction to Computing	4
<u>DEPARTMENT REQUIREMENTS</u> (7 Courses, 27 Credits)		DEPARTMENT REQUIREMENTS (7 Courses, 25-26	
DEFARTMENT REQUIREMENTS (7 Courses, 27 Credits)		Credits)	
CS 13A0 – Advanced Programming Techniques	4	CS 13A0 – Advanced Programming Techniques	4
CS 1400 - Computer Organization and Assembly Language		CS 1400 – Computer Organization and Assembly Language	4
Programming	4	Programming	4
CS 3500 – Discrete Structures	4	CS 3500 – Discrete Structures	4
CS 3700 – Data Structures	4	CS 3700 – Data Structures	4
MAT 2100 – Calculus III	4	MAT 2100 – Calculus III	3
MAT 5600 – Linear Algebra	3	MAT 5600 – Linear Algebra	3
MAT/BIO 9100 – Biostatistics (4 crs.) or	4	MAT/BIO 9100 – Biostatistics (4 crs.) or	3-4
BA/MAT 2200 – Business Statistics (4 crs.)		BA/MAT 2200 – Business Statistics (3 crs.)	
ELECTIVES: -0 credits sufficient to meet the required total	0	ELECTIVES: ^Note that MAT 9900 can be used as the	0 -4
60 credits for the degree.		prerequisite to MAT 1500. MAT 9900 (if required) and 0 -	
-		1 credit of electives, or 3 - 4 credit of electives sufficient to	
		meet the required total 60 credits for the degree.	

TOTAL CREDITS: 60	60	TOTAL CREDITS: 60	60
*This program has a waiver to require particular sources in the		*This program has a waiver to require particular sources in the	
*This program has a waiver to require particular courses in the Common Core, otherwise more than the minimum credits for the		*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.		degree may be necessary.	
Change in Degree Requirements			
A.S. Mathematics			
FROM:		TO:	
I NOW.		10.	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 13-Credits)	13	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 & Quantitative Reasoning*:	4	Mathematical & Quantitative Reasoning*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I ^	
Life and Physical Sciences:	3	Life and Physical Sciences:	3
FLEXIBLE CORE: (6 Courses, 20 Credits)	20	FLEXIBLE CORE: (6 Courses, 19 Credits)	19
When Flexible Core Courses are specified for a category,		When Flexible Core Courses are specified for a category,	
they are required for the major. One course from each		they are required for the major. One course from each	
Group A to D (Group E is satisfied by the courses shown).		Group A to D (Group E is satisfied by the courses shown).	
No more than two courses can be selected from the same discipline.		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	4	MAT 1600 - Calculus II	3
CS 1200 - Introduction to Computing	4	CS 1200 - Introduction to Computing	4
DEPARTMENT REQUIREMENTS (7 Courses, 27 Credits)		DEPARTMENT REQUIREMENTS (7 Courses, 25-26 Credits)	
MAT 2100 – Calculus III	4	MAT 2100 – Calculus III	3
MAT 5500 – Differential Equations	3	MAT 5500 – Differential Equations	3
MAT 5600 – Linear Algebra (3 crs.)	3	MAT 5600 – Linear Algebra (3 crs.)	3
MAT/BIO 9100 – Biostatistics or	4	MAT/BIO 9100 – Biostatistics (4 crs) or	3-4
MAT/BA 2200 – Business Statistics		MAT/BA 2200 – Business Statistics (3 crs.)	
CS 3500 – Discrete Structures (4 crs.)	4	CS 3500 – Discrete Structures (4 crs.)	4

HE 1400 - Critical Issues in Personal Health	4		
THE TISS SHADAR ISSUED IN TOTOCHAI FICARA		MAT 3000 - Introduction to Mathematical Concepts in Proof	1
AND		AND	
Select two (2) courses from the following:		Select two (2) courses from the following:	
CS 13A0 – Advanced Programming Techniques (4 crs.) or		CS 13A0 – Advanced Programming Techniques (4 crs.) or	
CS 1400 – Computer and Assembly Language Programming (4 crs.) or		CS 1400 – Computer and Assembly Language Programming (4 crs.) or	
MAT 1100 – Finite Mathematics (4 crs.) or		MAT 1100 – Finite Mathematics (4 crs.) or	
MAT 3200 – Introduction to Set Theory (4 crs.) or		MAT 3200 – Introduction to Set Theory (4 crs.) or	
MAT 7100 – Applications of Linear Algebra and Vector Analysis (4 crs.)		MAT 7100 – Applications of Linear Algebra and Vector Analysis (4 crs.)	
ELECTIVES: 0 credits sufficient to meet the required total 60 credits for the degree.	0	ELECTIVES: ^Note that MAT 9900 can be used as the prerequisite to MAT 1500. MAT 9900 (if required) and 0 - 1 credit of electives, or 3 - 4 credit of electives sufficient to meet the required total 60 credits for the degree.	0 - 4
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.	
E. Department of Physical Sciences			
Change in Degree Requirements			
1. A.S. Chemistry			
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 44-Credits)	14	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*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I	

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,		When Flexible Core Courses are specified for a category,	
they are required for the major. One course from each		they are required for the major. One course from each	
Group A to D (Group E is satisfied by the courses shown).		Group A to D (Group E is satisfied by the courses shown).	
No more than two courses can be selected from the same		No more than two courses can be selected from the same	
discipline.		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		PHY 1300 – Advanced General Physics I	
CHM 1200 - General Chemistry II		CHM 1200 - General Chemistry II	
<u>DEPARTMENT REQUIREMENTS</u> (4 Courses, 18 Credits)	18	DEPARTMENT REQUIREMENTS	
		Physical Sciences Requirements (4 to 5 Courses, 21 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	4		
PHY 1400 – Advanced General Physics II	4	PHY 1400 – Advanced General Physics II	4
		Advanced Elective Credits in Chemistry, Engineering Science, Earth and Planetary Sciences, Physics, or Science	7
		Mathematics Requirements (1 Course, 3 Credits)	
		MAT 1600 Calculus II	3
ELECTIVES: 8 credits sufficient to meet the required total	8	ELECTIVES: 0-3 credits sufficient to meet the required total	
60 credits for the degree.	0	60 credits for the degree.	0-3
		Notes:	
		1. ENG 9200 (0 credits) if required, is a pre-requisite for ENG 1200.	
		2. CHM 100 (0 credits) if required, is a pre-requisite for CHM	
	ļ	<u>1100.</u>	

	1	3. MAT M100, MAT M200, and MAT 9800 (0 credits) if	T
		required, are pre-requisites for MAT 9900.	
		4. MAT 9900 (3 credits) if required, is a pre-requisite for	
	+	<u>MAT1500.</u>	
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.	
Change in Degree Requirements			
2. A.S. Earth and Planetary Sciences			
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 14-Credits)	14	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*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I	
Life and Physical Sciences*:	4	Life and Physical Sciences*:	4
CHM 1100 - General Chemistry I		CHM 1100 - General Chemistry I	
ELEVIDLE CORE: (C.Courses, 20 Credite)	20	ELEVIDI E CODE: (C Courses 20 Credite)	200
FLEXIBLE CORE: (6 Courses, 20 Credits) 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.	20	FLEXIBLE CORE: (6 Courses, 20 Credits) 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.	20
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 3800 – Introduction to Earth Science	
EPS 3100 - Meteorology		EPS 3100 - Meteorology	

DEPARTMENT REQUIREMENTS (6 Courses, 24 Credits)		DEPARTMENT REQUIREMENTS	
		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	4		
PHY 1100 – General Physics I	4	PHY 1100 – General Physics I	4
		Mathematics Requirements (1 Course, 3 Credits)	
		MAT 1600 - Calculus II	3
ELECTIVES : 2 credits sufficient to meet the required total 60 credits for the degree.	2	ELECTIVES: 1-4 credits sufficient to meet the required total 60 credits for the degree.	1-4
		Notes:	
		1. ENG 9200 (0 credits) if required, is a pre-requisite for ENG 1200.	
		2. CHM 100 (0 credits) if required, is a pre-requisite for CHM 1100.	
		3. MAT M100, MAT M200, and MAT 9800 (0 credits) if required, are pre-requisites for MAT 9900.	
		4. MAT 9900 (3 credits) if required, is a pre-requisite for MAT1500.	
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.	
Change in Degree Requirements			
3. A.S. Engineering Science			
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 14-Credits)	14	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*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I	
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		PHY 1300 – Advanced General Physics I	
CHM 1200 - General Chemistry II		CHM 1200 - General Chemistry II	
DEPARTMENT REQUIREMENTS (9-Courses, 32-Credits)		DEPARTMENT REQUIREMENTS	
		Physical Sciences Requirements (4 Courses,13 Credits)	
PHY 1300 – Advanced General Physics I	4		
PHY 1400 – Advanced General Physics II	4	PHY 1400 – Advanced General Physics II	4
EGR 2100 – Engineering Design	3	EGR 2100 – Engineering Design	3
EGR 2200 – Introduction to Electrical Engineering	3	EGR 2200 – Introduction to Electrical Engineering	3
EGR 2300 – Introduction to Engineering Thermodynamics	3	EGR 2300 – Introduction to Engineering Thermodynamics	3
		Mathematics Requirements (5 Courses, 16 Credits)	
CS 1200 – Introduction to Computing	4	CS 1200 – Introduction to Computing	4
		MAT 1600 - Calculus II	3
MAT 2100 – Calculus III	4	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
ELECTIVES: 0-4 credits sufficient to meet the required total 66 to 70 credits for the degree.	2	ELECTIVES: 0-3 credits sufficient to meet the required total 65 credits for the degree.	0-3
		Notes:	
		1. ENG 9200 (0 credits) if required, is a pre-requisite for ENG 1200.	

		2. CHM 100 (0 credits) if required, is a pre-requisite for CHM	
		1100.	
		3. MAT M100, MAT M200, and MAT 9800 (0 credits) if	
		required, are pre-requisites for MAT 9900.	
		4. MAT 9900 (3 credits) if required, is a pre-requisite for	
		MAT1500.	
TOTAL CREDITS: 66 to 70	66-70	TOTAL CREDITS: 65	65
*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.	
Change in Degree Requirements			
4. A.S. Physics			
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 44-Credits)	14	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*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I	
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		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).		Group A to D (Group E is satisfied by the courses shown).	
No more than two courses can be selected from the same		No more than two courses can be selected from the same	
discipline.		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		PHY 1300 – Advanced General Physics I	

CHM 1200 - General Chemistry II		CHM 1200 - General Chemistry II	
DEPARTMENT REQUIREMENTS (9-Courses, 32 Credits)		DEPARTMENT REQUIREMENTS	
		Physical Sciences Requirements (4 Courses,14 Credits)	
		EGR 2200 – Introduction to Electrical Engineering	3
		EGR 2300 – Introduction to Engineering Thermodynamics	3
PHY 1300 – Advanced General Physics I	4		
PHY 1400 – Advanced General Physics II	4	PHY 1400 – Advanced General Physics II	4
Advanced Electives (8 to 11 credits):		AND	
		Select ONE (1) of the Following:	4
		EPS 3100 - Meteorology (4 crs.) OR	
Select only ONE, Either		EPS 3200 - Oceanography (4 crs.) OR	
EPS 3300 – Physical Geology (4 crs.) or		EPS 3300 - Physical Geography (4 crs) OR	
EPS 3500 – Introduction to Astronomy (4 crs.) or		EPS 3500 - Introduction to Astronomy (4 crs) OR	
EPS 3600 – Planetology: A Trip Through the Solar System (4 crs.)		EPS 3600 - Planetology: A Trip Through the Solar	
OR OR		System (4 crs) OR Advanced Elective Credits in Physics (4 ers.)	
PHY 81XX – Independent Study (1 to 3 crs.)		Advanced Elective Credits in Physics (4 crs.)	
TTTT OTAX - independent olddy (1 to 3 cis.)		Mothers of a Remainment (2 Courses 0 Credite)	
		Mathematics Requirements (3 Courses, 9 Credits)	
		MAT 1600 - Calculus II	3
		Select TWO (2) of the Following:	6
Select only ONE, Either		MAT 2100 – Calculus III (3 crs.)	
MAT 5500 – Differential Equations (3 crs.) or		MAT 5500 – Differential Equations (3 crs.)	
MAT 5600 – Linear Algebra (3 crs.)		MAT 5600 – Linear Algebra (3 crs.)	
<u>OR</u>			
Select only ONE, Either			
EGR 2200 – Introduction to Electrical Engineering (3 crs.) or			
EGR 2300 – Introduction to Engineering Thermodynamics (3 crs.)			
ELECTIVES: 7–10-credits sufficient to meet the required total 60 credits for the degree.	7-10	ELECTIVES: 1-4 credits sufficient to meet the required total 60 credits for the degree.	1-4
		Notes:	
		1. ENG 9200 (0 credits) if required, is a pre-requisite for ENG 1200.	

		2. CHM 100 (0 credits) if required, is a pre-requisite for CHM	
		1100.	
		3. MAT M100, MAT M200, and MAT 9800 (0 credits) if	
		required, are pre-requisites for MAT 9900.	
		4. MAT 9900 (3 credits) if required, is a pre-requisite for	
		MAT1500.	
TOTAL CREDITS: 60	60	TOTAL CREDITS: 60	60
*This program has a waiver to require particular courses in the		*This program has a waiver to require particular courses in the	
Common Core, otherwise more than the minimum credits for the		Common Core, otherwise more than the minimum credits for the	
degree may be necessary.		degree may be necessary.	
Change in Degree Requirements			
5. A.S. Science for Forensics			
FROM	<u> </u>	170	
FROM:		TO:	
CUNY CORE		CUNY CORE	
REQUIRED CORE: (4 Courses, 44-Credits)	14	REQUIRED CORE: (4 Courses, 13 Credits)	13
When Required Core Courses are specified for a category,		When Required Core Courses are specified for a category,	
they are required for the major		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*:	3
MAT 1500 - Calculus I		MAT 1500 - Calculus I	
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,	1	When Flexible Core Courses are specified for a category,	
they are required for the major. One course from each		they are required for the major. One course from each	
Group A to D (Group E is satisfied by the courses shown).		Group A to D (Group E is satisfied by the courses shown).	
No more than two courses can be selected from the same		No more than two courses can be selected from the same	
discipline.		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 1100 – General Chemistry I	
BIO 1400 - General Biology II		BIO 1400 - General Biology II	

DEPARTMENT REQUIREMENTS (9-Courses, 32 Credits)		DEPARTMENT REQUIREMENTS	
		Physical Sciences Requirements (5 Courses,22 Credits)	
A cumulative grade point average of 2.50 or above, which includes BIO 1300 and BIO 1400, as well as the following credits is required:		A cumulative grade point average of 2.50 or above, which includes BIO 1300, BIO 1400, and CHM 1100 as well as the following 22 credits is required:	
CHM 1100 – General Chemistry I	4		
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
ELECTIVES: θ-credits sufficient to meet the required total 60 credits for the degree.	θ	ELECTIVES: 2-5 credits sufficient to meet the required total 60 credits for the degree.	2-5
		Recommended MAT 1600 - Calculus II	
		Notes:	
		1. ENG 9200 (0 credits) if required, is a pre-requisite for ENG 1200.	
		2. CHM 100 (0 credits) if required, is a pre-requisite for CHM 1100.	
		3. MAT M100, MAT M200, and MAT 9800 (0 credits) if required, are pre-requisites for MAT 9900.	
		4. MAT 9900 (3 credits) if required, is a pre-requisite for MAT1500.	
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.	
NEW COURSES			
A. Department of Art			
1. ART 2200, Medieval Art			
Prerequisite: None			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 3			

Equated Credits: N/A			
Hours: 3			
Early Christian, Jewish, Byzantine, Islamic, Carolingian, Otto	nian, Ro e an unc t also ex	lerstanding of each culture's characteristic style, connection to plores how artworks functioned within religious and political	
D. Donovimont of English	1		
B. Department of English	+		
ENG 5400, Introduction to Creative Writing Prerequisite: ENG 1200			
·	+		
Corequisite: None	+		
Pre/Co-requisite: None Credits: 3			
Equated Credits: N/A	+	T	
Hours: 3	+		
writing process. Students will write, revise, and share their wworks by contemporary authors. C. Department of Health, Physical Education and			
Recreation			
1. PEC 7200, First Responders Physical Fitness Training			
Prerequisite: None			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 1			
Equated Credits: N/A			
Hours: 2			
Course Description: This course is specifically designed to design physical requirements for entrance to the Police and Fire Acathe United States. The course includes aerobic and anaerobic	ademies	in New York City, as well as other first responder exams in	
	1	T	
D. Department of History, Philosophy and Political Science			
1. PHI 6600, Criminal Justice Ethics			
Prerequisite: None			
Corequisite: None			

Pre/Co-requisite: None			
Credits: 3			
Equated Credits: N/A			
Hours: 3			
Course Description: Application of ethical theories to moral is disobedience, police corruption, whistle blowing, stop and frisk unethical conduct, and the war on terror.		, ,	
E. Department of Mathematics and Computer Science			
1. MAT 3000, Introduction to Mathematical Concepts in Proof			
Prerequisite: MAT 1400 or MAT 9900			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 1			
Equated Credits: N/A			
Hours: 2 hrs lab			
serves as a bridge to the more advanced mathematics they winclude: Basic Set Theory, logic, counting principles, direct procounterexamples, induction, relations, functions, and cardinali	roof, cor	• • • • • • • • • • • • • • • • • • • •	
2. MAT 9800, Intermediate Algebra for STEM majors			
Prerequisite: Exit from mathematics remediation, per CUNY			
Corequisite: None			
Pre/Co-requisite: None			
Credits: 0			
Equated Credits: 8	<u> </u>		
Hours: 8			
Course Description: This course offers a comprehensive treat numbers and their properties, evaluating algebraic expression techniques, rational expressions and mixed quotients, radical equations, complex numbers, linear inequalities, absolute valuations and Midpoint Formulas, parallel and perpendicular line of any angle, algebraic operations with trigonometric expression Angles/Difference of Angles/Double Angle/Half Angle formulas Calculus I (MAT 1500). Students who have completed MAT 9	ns, integ express ue equa ines, equi ions, est s. This	er and rational exponents, polynomial expressions, factoring sions, geometric formulas, solving linear and quadratic tions and inequalities, linear equations in two variables, the uations of circles, right triangle trigonometry and trigonometry ablishing trigonometric identities, the Sum of course is intended for students whose major requires	

***INFORMATIONAL ITEMS FOR COLLE	GE (JOUNGIL FOLLOW	
INICODMATIONAL ITCMC COD OO! C		COLINCII FOLLOW	
MAT 800, Practical Mathematics for Today's World, Required Core: Mathematical and Quantitative Reasoning		Included in Change in Number of Credits/Hours	
D. Department of Mathematics and Computer Science			
3. PHI 6600, Criminal Justice Ethics, Flexible Core: Individual and Society (Group D)		Included in New Course Proposal	
2. HIS 3700, The Middle East - World War I to the Present, Flexible Core: World Cultures and Global Issues (Group A)			
HIS 3200, Modern China, Flexible Core: World Cultures and Global Issues (Group A)			
C. Department of History, Philosophy, and Political Science			
ENG 5400, Introduction to Creative Writing, Flexible Core: Creative Expression (Group C)		Included in New Course Proposal	
B. Department of English			
and Global Issues (Group A)		Included in New Course Proposal	
A. Department of Art 1. ART 2200, Medieval Art, Flexible Core, World Cultures			
COURSES FOR PATHWAYS APPROVAL			
polynomial and rational functions, radical functions, exponentic trigonometric functions. It also includes a study of the conic substudents who will eventually take Calculus. This course is integrated that the control of the conic substudents who have completed MAT 1400 will not get credit for	al and l ections ended f	ogarithmic functions, and both trigonometric and inverse and solving trigonometric equations. Recommended for or students whose majors require Calculus I (MAT 1500).	
Course Description: A course in analytic geometry and function	n theo	rv It covers both algebraic and functional aspects of	
Equated Credits: 3 Hours: 6			
Credits: 3			
Pre/Co-requisite: None			
Corequisite: None			
Prerequisite: MAT 9800 or MAT 900			
3. MAT 9900, Pre-Calculus for STEM majors			

CHANGES IN EXISTING COURSES	
A. Department of Health, Physical Education and Recreation	
Change: Prerequisite	
RPE 3600, Assessment Process in Therapeutic Recreation	
FROM:	TO:
Pre/Co-requisite: PSY 1100 and REC 3100	Pre/Co-requisite: RPE 3100, PSY 1100 is recommended
B. History, Philosophy, and Political Science	
Change: Course Title and Description	
HIS 1800, U.S. History in a Global Context: From Reconstruction to Present	
FROM:	TO:
U.S. History in a Global Context: From Reconstruction to Present	U.S. History in a Global Context: 1865 to Present
FROM:	TO:
This course examines the period from 1865 to present. It explores how U.S. History fits into the global context and investigates how such events and historical phenomenon as American industrialization, progressivism, and race relations can be better understood by examining them in a transitional historical context.	This course explores United States history in the context of global affairs from the late nineteenth century onwards. It investigates, for example, how the United States has defined itself in relation to the wider world; the rise of the United States as a global superpower; and the ways the United States interacts with peoples from around the world, both at home and abroad, have shaped the nation's history.
2. HIS 2000, The Immigrant in American Society	
FROM:	TO:
The Immigrant in American Society	U.S. Immigration History
FROM:	TO:

Change: Pre/Co-requisite: MAT 1400 Pre/Co-requisite: MAT 1400 or MAT 9900 Change: Course Credits/Hours 2. MAT 800, Practical Mathematics for Today's World FROM: TO: To: To: A credits, 4 hours Change: Prerequisite and Course Description 3. MAT 900, College Algebra To: To: To: To: To: To: To: To	Changing immigration pattern from the 17th century to the present. Immigrants, their motives and ambitions (background, role in American society, and contributions to American life).	This course explores the history of migration to the United States. It investigates the experiences of diverse groups of migrants and examines the interactions between migrant and the nation, exploring the changing meaning of "foreign" and "American."	
1. CS 1200, Introduction to Computing FROM: Pre/Co-requisite: MAT 1400 Change: Course Credits/Hours 2. MAT 800, Practical Mathematics for Today's World FROM: TO: TO: TO: TAIL A Hours TO: TO: TO: TO: TO: TO: TO: TO	C. Department of Mathematics and Computer Science		
1. CS 1200, Introduction to Computing FROM: Pre/Co-requisite: MAT 1400 Change: Course Credits/Hours 2. MAT 800, Practical Mathematics for Today's World FROM: TO: TO: TO: TAIL A Hours TO: TO: TO: TO: TO: TO: TO: TO	Change: Pre/Co-requisite		
Pre/Co-requisite: MAT 1400 or MAT 9900 Change: Course Credits/Hours 2. MAT 800, Practical Mathematics for Today's World FROM: 4 credits, 4 hours Change: Prerequisite and Course Description 3. MAT 900, College Algebra TO: TO: TO: TO: TO: TO: TO: TO	CS 1200, Introduction to Computing		
Change: Course Credits/Hours 2. MAT 800, Practical Mathematics for Today's World FROM: Change: Prerequisite and Course Description 3. MAT 900, College Algebra TO: TO: 3 credits, 4 hours (2 hrs. lecture, 2 hrs. lab) Thank 1 for the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 on the College Level Math portion of the Accuplacer (2) Successful completion of Pre-Algebra and a grade of 45 or higher on the Elementary Algebra portion of the Elementary Algebra portion of the College Level Math portion of the ACCUPLACER CUNY Mathematics Skills Test (COMPASS), or (3) Successful completion of Pre-Algebra and successful completion of a kingsborough Math 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	FROM:	TO:	
2. MAT 800, Practical Mathematics for Today's World FROM: 4 credits, 4 hours Change: Prerequisite and Course Description 3. MAT 900, College Algebra FROM: TO: To: To: To: To: To: To: To	Pre/Co-requisite: MAT 1400	Pre/Co-requisite: MAT 1400 or MAT 9900	
4 credits, 4 hours 3 credits, 4 hours (2 hrs. lecture, 2 hrs. lab) Change: Prerequisite and Course Description 3. MAT 900, College Algebra FROM: TO: Prerequisites: (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 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 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	Change: Course Credits/Hours 2. MAT 800, Practical Mathematics for Today's World		
FROM: TO: Prerequisites: (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 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 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	FROM: 4 credits, 4 hours		
FROM: TO: Prerequisites: (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 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 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 TO: Prerequisites: (1) MAT R300, or (2) Successful completion of the Elementary Algebra portion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55 - 69 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math.	Change: Prerequisite and Course Description		
Prerequisites: (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 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 Elementary Algebra portion of the Elementary Algebra portion of the ACCUPLACER CUNY Mathematics Skills Test (COMPASS), or (3) Successful completion of Pre-Algebra and successful completion of a Kingsborough Math 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	3. MAT 900, College Algebra		
Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 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 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	FROM:	TO:	
FROM: TO:	Prerequisites: (1) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55-69 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 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	of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a score of 55 - 69 on the College Level Math portion of the ACCUPLACER	
	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. MAT 900 is intended for students who are STEM majors and have placed directly into MAT 900 on the basis of Accuplacer test score. Notes: 1. STEM majors who satisfy the prerequisite and whose major does NOT require Calculus I (MAT 1500) should take MAT 900. 2. STEM majors who DO NOT satisfy the prerequisite and who intend to take Calculus I (MAT 1500) may instead register for MAT 9800 (Intermediate Algebra for STEM Majors). 3. Students who have completed MAT 9800 will NOT get credit for MAT 900.	
Change: Prerequisite		
MAT 2000, Elements of Statistics		
FROM:	TO:	
Prerequisites: (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 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	Prerequisites: (1) MAT R300, or (2) MAT 9800, or (3) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a minimum of score of 55 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math	
Change: Proroguisite and Credite/Hours		
Change: Prerequisite and Credits/Hours		
5. MAT/BA 2200, Business Statistics		
FROM:	TO:	

Prerequisites: (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 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	Prerequisites: (1) MAT R300, or (2) MAT 9800, or (3) Successful completion of the Elementary Algebra portion of the ACCUPLACER CUNY Assessment Test in Math and a minimum of score of 55 on the College Level Math portion of the ACCUPLACER CUNY Assessment Test in Math	
FROM:	TO:	
4 credits, 4 hrs.	3 credits, 4 hrs. (2 hrs. lecture, 2 hrs. lab)	
Change: Prerequisite		
6. MAT/BIO 9100, Biostatistics		
FROM:	TO:	
Prerequisite: MAT 900	Prerequisite: MAT 900 or MAT 9800	
Change: Course Description		
7. MAT 1400, Analytic Geometry and Pre-Calculus		
FROM:	TO:	

This pre-calculus course stresses real numbers, open sentences, functions and relations, and serves as an introduction to analytic geometry and to probability. Recommended for students planning to continue with calculus and/or mathematics electives.	This pre-calculus course stresses real numbers, open sentences, functions and relations, and serves as an introduction to analytic geometry and to probability. Recommended for students planning to continue with calculus and/or mathematics electives. MAT 1400 is intended for students who are STEM majors and have placed directly into MAT 1400 on the basis of Accuplacer test score. Notes: 1. STEM majors who satisfy the prerequisite and whose major does NOT require Calculus I (MAT 1500) should take MAT 1400. 2. STEM majors who DO NOT satisfy the prerequisite and who intend to take Calculus I (MAT 1500) may instead register for MAT 9900 (Pre-Calculus for STEM Majors). 3. Students who have completed MAT 9900 will NOT get credit for MAT 1400.
Change: Prerequisite and Credit/Hours	
8. MAT 1500, Calculus I	
FROM:	TO:
Prerequisite: MAT 1400 with a grade of "C" or better	Prerequisite: (1) MAT 1400 with a grade of "C" or better and Corequisite MAT 1000; or (2) MAT 9900 with a grade of "C" or better
Pre/Co-requisite: MAT 1000	
FROM:	TO:
4 credits, 4 hours	3 credits, 4 hours (2 hrs. lecture, 2 hrs. lab)
Change: Course Credit/Hours	
9. MAT 1600, Calculus II	
FROM:	TO:
4 credits, 4 hours	3 credits, 4 hours (2 hrs. lecture, 2 hrs. lab)
10. MAT 2100, Calculus III	
FROM:	TO:
4 credits, 4 hours	3 credits, 4 hours (2 hrs. lecture, 2 hrs. lab)
D. Department of Physical Sciences	
Change: Pre/Co-requisites	

CHM 100, Preview of General Chemistry	
c 130, i foriori di contain differinati	+
FROM:	TO:
Pre/Co-requisite: MAT 900	Pre/Co-requisite: MAT 900 or MAT 9800, or Departmental Permission
CHM 200, Introduction to Green Chemistry	
FROM:	TO:
Pre/Co-requisite: MAT 900	Pre/Co-requisite: MAT 900 or MAT 9800, or Departmental Permission
3. EGR 2100, Engineering Design	
FROM:	TO:
Prerequisites: Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading and Writing and MAT 900	Prerequisites: Passed, exempt, or completed developmental course work for the CUNY Assessment Tests in Reading and Writing and MAT 900 or MAT 9800
Corequisite: MAT 1400	Corequisite: NONE
	Pre/Co-requisite: MAT 1400, or MAT 9900, or Department Permission
EGR 2200, Introduction to Electrical Engineering	
FROM:	TO:
Prerequisites: MAT 2100 and PHY 1400	Prerequisites: NONE
Corequisite: MAT 5500	Corequisite: NONE
	Pre/Co-requisite: MAT 5500 and PHY 1400, or Department Permission
5. EGR 2300, Introduction to Engineering Thermodynamics	
FROM:	TO:
Prerequisites: CHM 1200 and PHY 1400	Prerequisites: NONE
Corequisite: CS 1200	Corequisite: NONE
	Pre/Co-requisite: CHM 1200 and PHY 1400, or Department Permission
6. PHY 100, Preview of General Physics I	

Pre/Co-requisite: MAT 900, or MAT 9800, or Department Permission TO:
Prerequisite: NONE
Pre/Co-requisite: MAT 1400, or MAT 9900, or Department Permission
TO:
Pre/Co-requisite: MAT 1500, or Department Permission
TO:
Prerequisite: PHY 1300
Pre/Co-requisite: MAT 1600, or Department Permission
