Attachment A: Curriculum Committee Resolution - November 17, 2015

I. SPECIAL ACTIONS- CHANGE IN/ADDITION OF ACADEMIC POLICY

Al. 1.1: Department of Nursing Change in Admission Criteria for the Clinical Component of the Nursing Program

FROM:

- 1. be enrolled in the Pre-Clinical Component. A student must complete an application for Pre-Clinical Nursing during the period noted on the Academic Calendar. The application is obtained in the Registrar's Office. The student must see a nursing advisor to discuss their academic performance and obtain a advisor's signature on the application. The application is submitted to the Nursing Department (M401);
- 2. pass the CUNY Reading and Writing exams and parts 1 and 2 of the COMPASS Math Skills Test and/or complete any required remediation before completion of the four (4) courses in the Pre-Clinical Sequence;
- 3. complete the four (4) courses in the Pre-Clinical Sequence: ENG 1200, PSY 1100, BIO 1100 and SCI 2500:
- 4. complete the four courses the Pre-Clinical Sequence with at least a grade point average of 2.5 and earn at least two (2) Bs (one of which must be in SCI 2500 or BIO 1100);
- 5. the student who has repeated and/or withdrawn from any of the Pre-Clinical Sequence courses may not be considered for admission to the Nursing program;
- 6. all grades received for courses taken in the Pre-Clinical Sequence at Kingsborough will be included in the Pre-Clinical average computation;

TO:

- 1. be enrolled in the Pre-Clinical Component. A student must complete an application for Pre-Clinical Nursing during the period noted on the Academic Calendar. The application is obtained in the Registrar's Office. The student must see a nursing advisor to discuss their academic performance and obtain a advisor's signature on the application. The application is submitted to the Nursing Department (M401);
- 2. pass the CUNY Reading and Writing exams and parts 1 and 2 of the COMPASS Math Skills Test and/or complete any required remediation before completion of the four (4) courses in the Pre-Clinical Sequence;
- 3. complete the four (4) courses in the Pre-Clinical Sequence: ENG 1200, PSY 1100, BIO 1100 and SCI 2500;
- 4. complete the four courses the Pre-Clinical Sequence with at least a grade point average of 2.5 and earn at least two (2) Bs (one of which must be in SCI 2500 or BIO 1100);
- 5. the student who has repeated and/or withdrawn from any of the Pre-Clinical Sequence courses may not be considered for admission to the Nursing program;
- 6. all grades received for courses taken in the Pre-Clinical Sequence at Kingsborough will be included in the Pre-Clinical average computation;

- 7. submit transcripts from other colleges (NOTE: Letter grades received in the Pre-Clinical Sequence courses at other colleges will be used to determine eligibility for admission); any biological science course more than 10 years old will not be accepted for exemption or credit;
- 8. perform satisfactorily on the Test of Essential Academic Skills (TEAS) exam.
- 9. the transfer student from other colleges must be in good academic standing. A student who is on academic probation or has been administratively dismissed from a Nursing program at a previous school is not eligible for admission to the Nursing program;
- 7. submit transcripts from other colleges (NOTE: Letter grades received in the Pre-Clinical Sequence courses at other colleges will be used to determine eligibility for admission); any biological science course more than 10 years old will not be accepted for exemption or credit;
- 8. perform satisfactorily on the Test of Essential Academic Skills (TEAS) exam.
- 9. the transfer student from other colleges must be in good academic standing. A student who is on academic probation or has been administratively dismissed from a Nursing program at a previous school is not eligible for admission to the Nursing program;

10. the student must earn a minimum of a "C" grade in all pre and co-requisite courses. Inclusive of BIO 1200, BIO 5100, ENG 2400, PSY 3200, and SOC 3100. Students who have repeated and/or withdrawn from these courses may not be considered for admission to the Nursing program.

II. CHANGE IN DEGREE TYPE NONE

III. CHANGE IN DEGREE REQUIREMENT

Department of Behavioral Sciences AIII. 1.1: A.S. Education Studies Change: Requirements for the Major

FROM: TO:

CUNY CORE

CUNY CORE

REQUIRED CORE:	12	REQUIRED CORE:	12
ENG 1200	3	ENG 1200	3
ENG 2400	3	ENG 2400	3
± Mathematical & Quantitative Reasoning	3	± Mathematical & Quantitative Reasoning	3
± Life and Physical Sciences	3	± Life and Physical Sciences	3
FLEXIBLE CORE:	18	FLEXIBLE CORE:	18

course from any Group. No more than two courses in the same discipline . Included among these courses are PSY 3000 and SOC 3100 (Core Group D), SOC 3200 (Core Group B), and a Liberal Arts Elective (Core Group A or C) are recommended.		course from any Group. No more than two courses in the same discipline . Included among these courses are PSY 3000 and SOC 3100 (Core Group D), SOC 3200 (Core Group B), and a Liberal Arts Elective (Core Group A or C) are recommended.	
 A. World Cultures and Global Issues B. U.S. Experience In Its Diversity C. Creative Expression D. Individual & Society ± E. Scientific World ± Plus another course selected from any Group A – E 		 A. World Cultures and Global Issues B. U.S. Experience In Its Diversity C. Creative Expression D. Individual & Society ± E. Scientific World ± Plus another course selected from any Group A – E 	
DEPARTMENT REQUIREMENTS §	22	DEPARTMENT REQUIREMENTS §	23
Critical Issues in Personal Health (HE 1400)	4		
Introduction to Sociology (SOC 3100)	3	Introduction to Sociology (SOC 3100)	3
Social Foundations of Education (EDC 200)	3	Social Foundations of Education (EDC 200)	3
Child and Adolescent Development (PSY 3000)	3	Child and Adolescent Development (PSY 3000)	3
Psychological Disorders in Young Children (PSY 2400)	3	Psychological Disorders in Young Children (PSY 2400)	3
Art Workshop in Education (EDC 2200)	3	Art Workshop in Education (EDC 2200)	3
Music & Movement Workshop in Education (EDC 2300)	2	Music & Movement Workshop in Education (EDC 2300)	2
Practicum in Teacher Development I (EDC 90A4) *	3	Practicum in Teacher Development I (EDC 90A4) *	3
Development of Literacy in Children (HUM 8181)	4		
		Liberal Arts Elective (Groups A-E)	3
Choose one of the following options:		Choose one of the following options:	
FOR CONCENTRATION IN EARLY CHILDHOOD EDUCATION BIRTH – 2ND GRADE	6	FOR CONCENTRATION IN BIRTH – 2ND GRADE EDUCATION	6
Social Sciences in Education (EDC 2100)	3		
(======================================	Ţ	Infant/Toddler Development (EDC 3200)	3
Liberal Arts (Groups A-E) Elective	3		
		Educational Practices for Early Language and Literacy Development (EDC 4000)	3
OR		OR	
FOR CONCENTRATION IN CHILDHOOD EDUCATION (KINDERGARTEN – 6TH GRADE)	6	FOR CONCENTRATION IN CHILDHOOD EDUCATION (1st - 6th Grade)	7
Social Science in Childhood Education (EDC 3100)	3	Social Science in Childhood Education (EDC 3100)	3

One course from each Group A – E plus an additional

One course from each Group A – E plus an additional

Urban Sociology (SOC 3200)

3 Urban Sociology (SOC 3200)

3

<u>ELECTIVES:</u> From 2 - 11 credits sufficient to total 60 credits for the degree.

2-11 <u>ELECTIVES:</u> From 0 to 12 credits sufficient to meet 60 credits for the degree (Liberal Arts courses recommended)

0-12

12

This program is jointly registered with Brooklyn College's B.A. in Early Childhood Education. Electives should be chosen based on transferability to Brooklyn College and in consultation with a program advisor. § Consultation with the Department Advisor is required and students must meet jointly registered program's requirements.

This program is jointly registered with Brooklyn College's B.A. in Early Childhood and Art Education and Childhood, Bilingual and Special Education.

Electives should be chosen based on transferability to Brooklyn College and in consultation with a program advisor. Students must enroll in practicum appropriate to the grade level they wish to teach. § Consultation with the Department Advisor is required and students must meet jointly registered program's requirements.

Department of Business

AIII. 2.1: A.A.S. Office Administration and Technology

Change: Requirements for the Major and Deletion of

Concentration

FROM: TO:

CUNY CORE

REQUIRED CORE:

CUNY CORE

12 **REQUIRED CORE**:

ENG 1200	3	ENG 1200	3
ENG 2400	3	ENG 2400	3
±Mathematical & Quantitative Reasoning	3	±Mathematical & Quantitative Reasoning	3
±Life and Physical Sciences	3	±Life and Physical Sciences	3
FLEXIBLE CORE:		FLEXIBLE CORE:	
Nine (9) credits with one (1) course from three (3) groups A-E. Each course from a different discipline.	9	Nine (9) credits with one (1) course from three (3) groups A-E. Each course from a different discipline.	9
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 and Society		D. Individual and Society	
± E. Scientific World		± E. Scientific World	

DEGREE REQUIREMENTS §

DEGREE REQUIREMENTS §

Students with typing skills may be exempt from elementary and/or intermediate courses upon consultation with the Department Advisor. Depending on their keyboarding skills, students must take one of these three keyboarding course sequences:

- Students with no (or minimal) keyboarding skills must take TEC 1100, 1200 and 1300 (6 credits)
- Students with moderate keyboarding skills, with department approval, must take TEC 4100 and 1300 (6 credits)
- Students with advanced keyboarding skills, with department approval, must take TEC 4200 (4 credits)

Students with typing skills may be exempt from elementary and/or intermediate courses upon consultation with the Department Advisor. Depending on their keyboarding skills, students must take one of these three keyboarding course sequences:

- Students with no (or minimal) keyboarding skills must take TEC 1100, 1200 and 1300 (6 credits)
- Students with moderate keyboarding skills, with department approval, must take TEC 4100 and 1300 (6 credits)
- Students with advanced keyboarding skills, with department approval, must take TEC 4200 (4 credits)

All majors must take:	20- 22	All majors must take:	20-22
Keyboarding (as listed above)	4-6	Keyboarding (as listed above)	4-6
Organizing the Electronic Office (TEC 2400)	3	Organizing the Electronic Office (TEC 2400)	3
Office Administration (TEC 3400)	3	Office Administration (TEC 3400)	3
Business Communications (ADM 3700)	3	Business Communications (ADM 3700) or Business Communications (BA 3300)	3
Computer Applications I (TEC 2500) or Introduction to Computer Concepts (BA 6000)	3	Computer Applications I (TEC 2500) or Introduction to Computer Concepts (BA 6000)	3
Field Experience (ADM 9200)	3	Field Experience (ADM 9200)	3
Critical Issues in Personal Health (HE 1400)	1	Critical Issues in Personal Health (HE 1400)	1

PLUS, FOR-STENOGRAPHIC-MAJORS WITH **CONCENTRATIONS IN:**

PLUS, FOR MAJORS WITH CONCENTRATIONS IN:

EXECUTIVE		Delete Concentration	
Elementary Shorthand (ADM 1500)	3		
Intermediate Shorthand (ADM 1700)	3		
Advanced Shorthand and Transcription (ADM 3000)	4		
LEGAL	13	LEGAL	15
Elementary Shorthand (ADM 1500)	3	LEGAL	13
Intermediate Shorthand (ADM 1700)	3		
Advanced Shorthand and Transcription (ADM 3000)	4		
Legal Terminology and Law Office Transcription (TEC 5000)	3	Legal Terminology and Law Office Transcription (TEC 5000)	3
		Word information Processing I (TEC 2100)	3
		5	

		Office Computer Applications II (TEC 2600)	3
		Business Law (BA 1200)	3
SCHOOL STANDARD (ADMASON)	16	<u>SCHOOL</u>	15
Elementary Shorthand (ADM 1500) Intermediate Shorthand (ADM 1700)	3 3		
Advanced Shorthand and Transcription (ADM 3000)	4		
School Secretary I (ADM 5300)	2	School Secretary I (ADM 5300)	2
School Secretary II (ADM 5400) School Records and Accounts (ADM 5500)	2 2	School Secretary II (ADM 5400) School Records and Accounts (ADM 5500)	2 2
	_	Word Information Processing I (TEC 2100)	3
		Office Computer Applications II (TEC 2600)	3
		Office Systems and Procedures (ADM 2400)	3
PLUS, FOR NON-STENOGRAPHIC MAJORS WITH-CONCENTRATIONS IN:			
WORD/INFORMATION PROCESSING	12	WORD/INFORMATION PROCESSING	15
Basic Word/Information Processing (TEC 2100)	3	Basic Word/Information Processing (TEC 2100)	3
Machine Transcription (TEC 2300)	3	Machine Transcription (TEC 2300)	3
Office Systems and Procedures (ADM 2400) Office Computer Applications II (TEC 2600)	3	Office Systems and Procedures (ADM 2400) Office Computer Applications II (TEC 2600)	3 3
, ,		Photodigital Illustration (TEC 5900)	3
MEDICAL WORD/INFORMATION PROCESSING	16	MEDICAL WORD/INFORMATION PROCESSING	16
Basic Word/Information Processing (TEC 2100)	3	Basic Word/Information Processing (TEC 2100)	3
Machine Transcription (TEC 2300)	3	Machine Transcription (TEC 2300) Office Systems and Procedures (ADM 2400)	3 3
Office Systems and Procedures (ADM 2400)	3	·	
Terminology and Electronic Transcription (TEC 6100)	4	Terminology and Electronic Transcription (TEC 6100)	4
Computer Applications for Medical Office (TEC 6200)	3	Computer Applications for Medical Office (TEC 6200)	3
ELECTIVES 1—9 credits sufficient to meet required total of 60 credits.	1-9	ELECTIVES 1 – 4 credits sufficient to meet required total of 60 credits.	1-4
§ Consultation with the Department Advisor is required.		§ Consultation with the Department Advisor is required.	
Department of Communications & Performing Arts AIII. 3.1: A.S. Media Arts Change: Remove Note for the Program			

Electronic Transcription (TEC 2300)

TO: FROM: Note: Consult with Advisor to use electives for **Delete Note** concentrations in Advertising, Engineering, Management, News, Performance and Production." Department of Communications & Performing Arts AIII. 3.2: A.S. Theatre Arts Change: Requirements for the Major FROM: TO: **CUNY CORE CUNY CORE REQUIRED CORE:** REQUIRED CORE: **ENG 1200** 3 ENG 1200 3 3 **ENG 2400** 3 ENG 2400 3 ± Mathematical & Quantitative Reasoning 3 ± Mathematical & Quantitative Reasoning ± Life and Physical Sciences 3 ± Life and Physical Sciences 3 **FLEXIBLE CORE: FLEXIBLE CORE:** One course from each Group A – E plus an additional 18 One course from each Group A – E plus an additional 18 course from any Group. No more than two courses in course from any Group. No more than two courses in the same discipline. 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 ± Plus another course selected from any Group A – E ± Plus another course selected from any Group A – E **DEGREE REQUIREMENTS § DEGREE REQUIREMENTS §** All majors must take: All majors must take: Introduction to Theatre Arts (THA 5000) 3 Introduction to Theatre Arts (THA 5000) 3 Play Analysis (THA 5100) 3 Play Analysis (THA 5100) 3 3 3 Acting I: Beginning Acting (THA 5200) Acting I: Beginning Acting (THA 5200) 3 History of Theatre (THA 6800) 3 History of Theatre (THA 6800) 3 Introduction to Technical Theatre (THA 55) 3 Introduction to Technical Theatre (THA 55) Choose two courses from the following: Choose two courses from the following: 6 THA **4100**, 4300, 4400, 4600, 4700, **5050**, 5300, 5600, THA 4300, 4400, 4600, 4700, 5300, 5600, 5800, 6000, 6300, 6500, 6700, 81xx, 82xx, 92xx; 5800, 6000, 6300, 6500, 6700, 81xx, 82xx, 92xx;

MUS 3000, 3100, 9121;			
SPE 2700, 2900;		SPE 2700, 2900;	
PEC 2000, 3800, 3900;		PEC 2000, 3800, 3900;	
ART 3300		ART 3300	
PLUS, select one of the following concentrations	9	PLUS, select one of the following concentrations	9
			
PERFORMANCE CONCENTRATION:		PERFORMANCE CONCENTRATION:	
Performance Practicum (THA 4000) or Production	3	Performance Practicum (THA 4000) or Production	3
Practicum (THA 4100) for 3 credits. At least 1 credit		Practicum (THA 4100) for 3 credits. At least 1 credit	
must be THA 4100 (1 credit x 3 for a total of 3 credits)		must be THA 4100 (1 credit x 3 for a total of 3 credits)	
And, select two courses from the following:	6	And, select two courses from the following:	6
Voice and Diction for the Actor (THA 4400)		Voice and Diction for the Actor (THA 4400)	
Training the Performing Voice (THA 4600)		Training the Performing Voice (THA 4600)	
Acting II: Scene Study (THA 5300)		Acting II: Scene Study (THA 5300)	
Musical Theatre Performance (THA 5800)		Musical Theatre Performance (THA 5800)	
,		` '	
TECHNICAL PRODUCTION CONCENTRATION:		TECHNICAL PRODUCTION CONCENTRATION:	
Production Practicum (THA 4100) must be repeated for	3	Production Practicum (THA 4100) must be repeated for	3
a total of 3 credits (1 credit x 3 for a total of 3 credits.)		a total of 3 credits (1 credit x 3 for a total of 3 credits.)	
And, select two courses from the following:	6	And, select two courses from the following:	6
Basic Lighting (THA 5600)		Basic Lighting (THA 5600)	
Costume Design (THA 6000)		Introduction to Costuming and Makeup (THA 6000)	
· · · · · ·		• • • • • • • • • • • • • • • • • • • •	
Basic Sound Technology (THA 6300)		Basic Sound Technology (THA 6300)	
Scenic Design (THA 6500)		Scenic Design (THA 6500)	
Stage Management (THA 4700)		Stage Management (THA 4700)	
Garment Construction (FD 1400)		3	
(
ELECTIVES: 0 - 9 credits sufficient to total 60 credits for		ELECTIVES: 0 - 9 credits sufficient to total 60 credits for	
the degree.		the degree.	
Department of Foreign Languages and Liberal Arts			
AIII. 4.2: A.A. Liberal Arts			
Change: Addition of Concentration			
FROM:		TO:	
CUNY CORE		<u>CUNY CORE</u>	
REQUIRED CORE:		REQUIRED CORE:	

FD 1100, 1400;

ENG 1200	3	ENG 1200	3
ENG 2400	3	ENG 2400	3
± Mathematical & Quantitative Reasoning	3	± Mathematical & Quantitative Reasoning	3
± Life and Physical Sciences	3	± Life and Physical Sciences	3
FLEXIBLE CORE:		FLEXIBLE CORE:	
One course from each Group A – E plus an additional	18	One course from each Group A – E plus an additional	18
course from any Group. No more than two courses in		course from any Group. No more than two courses in	
the same discipline.		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	
± Plus another course selected from any Group A − E		± Plus another course selected from any Group A − E	
DEGREE REQUIREMENTS		DEGREE REQUIREMENTS	
Unless specified by your concentration, no more		Unless specified by your concentration, no more	
omoco opocinica by your concontitution, no more		ornood opcomod by your concontration, no more	
than four (4) of the following nine (9) courses may		than four (4) of the following nine (9) courses may	
than four (4) of the following nine (9) courses may also satisfy a CUNY CORE requirement:		than four (4) of the following nine (9) courses may also satisfy a CUNY CORE requirement:	
	3		3
also satisfy a CUNY CORE requirement:	3 3	also satisfy a CUNY CORE requirement:	3
also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre		also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre	
also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre Speech	3	also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre Speech	3
also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre Speech Literature	3	also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre Speech Literature	3
also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy	3 3 3	also satisfy a CUNY CORE requirement: Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy	3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics	3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics	3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History	3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History	3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology	3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology	3 3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology	3 3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology	3 3 3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits	3 3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits	3 3 3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology	3 3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology	3 3 3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits for the degree.	3 3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits for the degree.	3 3 3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits for the degree. If pursuing one of the following concentrations, students	3 3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits for the degree. If pursuing one of the following concentrations, students	3 3 3 3 3 3
Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits for the degree.	3 3 3 3 3 3	Art, Media and Film Studies, Music or Theatre Speech Literature Philosophy American Politics American History World History or Anthropology Psychology Sociology ELECTIVES: 3 – 15 credits sufficient to total 60 credits for the degree.	3 3 3 3 3 3

SPANISH CONCENTRATION

Majors electing this concentration must take the following three (3) courses for a total of nine (9) credits dependent upon Language Placement Examination Score:

Beginner: Elementary Spanish I (SPA 100), Elementary Spanish II (SPA 200), and Intermediate Spanish (SPA 300).

Intermediate: Intermediate Spanish (SPA 300), Readings in Hispanic Literature (SPA 400) and **Proper Models of Spanish Grammar and** Conversation for Native Speakers (SPA 1800).

Advanced: Proper Models of Spanish Grammar and Conversation for Native Speakers (SPA 1800) and a choice of two (2) Spanish Literature/Culture courses

In order to achieve this concentration within 60 credits, students must take a minimum of two (2) courses that not only satisfy major or concentration requirements, but also must satisfy Flexible Core requirements.

Department of Tourism & Hospitality AIII. 5.1: A.A.S Culinary Arts Change: Requirements for the Major

FROM:

CUNY CORE

REQUIRED CORE:

ENG 1200

ENG 2400

± Mathematical & Quantitative Reasoning

± Life and Physical Sciences

FLEXIBLE CORE:

Nine (9) credits with one (1) course from three (3) groups A-E. Each course from a different discipline.

A. World Cultures & Global Issues

B. U.S. Experience In Its Diversity

C. Creative Expression

D. Individual & Society

± E. Scientific World

TO:

CUNY CORE

REQUIRED CORE:

3 ENG 1200

3 ENG 2400

± Mathematical & Quantitative Reasoning

± Life and Physical Sciences

FLEXIBLE CORE:

Nine (9) credits with one (1) course from three (3) groups A-E. Each course from a different discipline.

A. World Cultures & Global Issues

B. U.S. Experience In Its Diversity

C. Creative Expression

D. Individual & Society

± E. Scientific World

DEGREE REQUIREMENTS & DEGREE REQUIREMENTS §

Culinary Concepts (CA 9900)

3

3

3

3

3

9

Introduction to Professional Food Service (TAH 7100)

Introduction to Professional Food Service (TAH 7100)

3

Culinary Arts I: Skills (CA 100)	3	Culinary Arts I: Skills (CA 100)	3
Culinary Arts II: Major Techniques (CA 200)	3	Culinary Arts II: Major Techniques (CA 200)	3
Baking and Pastry (CA 1100)	3	Baking and Pastry (CA 1100)	3
Food Safety and Sanitation Certification (CA 2100)	1	Food Safety and Sanitation Certification (CA 2100)	1
Garde Manger and Charcuterie (CA 300) or Patisserie (CA 1200)	3	Garde Manger and Charcuterie (CA 300) or Patisserie (CA 1200)	3
Beverage Management (CA 6000) or Event Catering Management (TAH 4300)	3	Beverage Management (CA 6000) or Event Catering Management (TAH 4300)	3
Restaurant and Food Service Operations (CA 7200)	3	Restaurant and Food Service Operations (CA 7200)	3
Menu and Dining Room Management (CA 7400)	3	Menu and Dining Room Management (CA 7400)	3
Global Culinary Improvisation Capstone (CA 9000)	3	Global Culinary Improvisation Capstone (CA 9000)	3
Internship in Culinary Arts (CA 9200)	3	Internship in Culinary Arts (CA 9200)	3
Introduction to Business (BA 1100) or Labor Relations & Customer Service Practices (TAH 500)	3		
Food and Beverage Cost Control (CA 5000)	3	Food and Beverage Cost Control (CA 5000)	3
Critical Issues in Personal Health (HE 1400)	1	Critical Issues in Personal Health (HE 1400)	1

60 credits.

ELECTIVES: 1 credit sufficient to meet required total of

Section AIV. NEW COURSES

Department of Behavioral Sciences

AVI. 1.1: EDC 4000, Educational Practice for Early

ELECTIVES: 1 credit sufficient to meet required total of

Language and Literacy Development Prerequisite: EDC 200 and EDC 3200

Corequisite: None Pre/Co-requisite: None

Credits: 3

60 credits.

Hours: 4 (2 hrs. Lectiure, 2 hrs. Supervised Field Experience)

E. Department of English

1. ESL 101, Accelerated Academic ESL I

Prerequisite: ESL Student Group and CUNY Assessment Scores: CATW 22 to 47 and any ACT Reading score

Corequisite: ENG 1050 Pre/Co-requisite: None Credits: 10 equated credits

Hours: 10 hours

2. ESL 102, Accelerated Academic ESL II

11

Prerequisite: ESL 101 Corequisite: None Pre/Co-requisite: None Credits: 10 equated credits

Hours: 10

2. ENG 1050, Integrative Language Seminar

Prerequisite: ESL Student Group and CUNY Assessment Scores: CATW 22 to 47 and any ACT Reading score

Corequisite: ESL 101
Pre/Co-requisite: None

Credits: 1 Hours: 2 (lab)

F. Department of Health, Physical Education and

Recreation

1. PEC 7100, High Intensity Fitness Training

Prerequisites: None
Corequisites: None

Pre/Co-requisites: None

Credits: 1 Hours: 2

G. Department of Physical Sciences

1. CHM 200, Introduction to Green Chemistry

Prerequisites: None Corequisites: None

Pre/Co-requisites: MAT 900

Credits: 3

Hours: 4 (2 lecture, 2 lab)

H. Department of Tourism and Hospitality

1. CA 9900, Culinary Concepts

Prerequisites: Passing score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing M1

Corequisites: None Pre/Co-requisites: None

Credits: 3 Hours: 3

2. CA 1300, Contemporary Dessert Plating

Prerequisites: CA 1100 and CA 1200

Corequisite: None Pre/Co-requisite: None

Credits: 3

Hours: 5 (1 lecture and 4 lab)

I. Multiple Departments: Integrative Studies Seminar

1. BA 5050, BEH 5050, BIO 5050, CA 5050, EDC 5050,

ENG 5050, TAH 5050, and THA 5050

Prerequisite: None Corequisites: None Pre/Co-requisites: None

Credits: 1 Hours: 2 (lab)

VI. COURSES FOR PATHWAYS APPROVAL

A. A414:A428

1. ENG 70, Sexuality and Literature, Flexible Core, Group C: Creative Expression

- B. Department of Foreign Language
- 1. CHI 100, Elementary Chinese I, Flexible Core, Group

A: World Cultures and Global Issues

2. CHI 200, Elementary Chinese II, Flexible Core, Group

A: World Cultures and Global Issues

- C. Department of History, Philosophy and Political Science
- 1. HIS 5200, Roots of the Modern World, Flexible Core, Group A: World Cultures and Global Issues
- D. Department of Physical Sciences
- 1. SCI 3700, Developments in the Physical Sciences and the Environment, Required Core: Life and Physical Sciences and Flexible Core, Group E: Scientific World
- SCI 5100, Chemistry and the Environment, Required Core: Life and Physical Sciences and Flexible Core, Group E: Scientific World
- 3. SCI 7000, The Science of Nutrition, Required Core: Life and Physical Sciences and Flexible Core, Group E: Scientific World

4. CHM 200, Introduction to Green Chemistry, Required Core: Life and Physical Sciences and Flexible Core,

Group E: Scientific World

VII. Resolved: Close the Maritime Technology Deck Specialty Certificate

The following are presented as Informational Items to the College Council.

VIII. CHANGES IN EXISTING COURSES

A. Department of Behavioral Sciences and Human Services

1. EDC 3100, Social Science in Childhood Education

Change: Pre/Co-requisite

FROM:

Prerequisite: EDC 200 or EDC 2000, with a grade of C or

better

Corequisite: None

Pre/Co-requisite: HUM 8181 and HIS or POL course

B. Department of Business

1. TEC 6200, Medical Office Computer

Change: Pre/Co-requisite

FROM:

Prerequisite: TEC 1100 or TEC 1400

Corequisite: None Pre/Co-requisite: None

C. Department of English

1. ENG 0400, Analytical Reading

Change: Course Description and Credit/Hours

FROM:

A pre-freshman course focused on the development of critical reading, writing, and thinking abilities through instruction and intensive practice in vocabulary and comprehension. Students will read and analyze interdisciplinary materials in preparation for required readings in typical college courses.

TO:

Prerequisite: EDC 200 and HUM 8181 with a grade of C

Corequisite: None

Pre/Co-requisite: ENG 1200, EDC 2300, PSY 1100,

SOC 3100

TO:

Prerequisite: None Corequisite: None Pre/Co-requisite: None

TO:

A pre-freshman course focused on the development of critical reading, writing, and thinking abilities through instruction and intensive practice in vocabulary and comprehension. Students will read and analyze interdisciplinary materials in preparation for required readings in typical college courses. Incoming Students Only.

FROM:

Credits: 0 credits, 4 equated credits

Hours: 4 hours

2. ENG 24, Freshman English II Change: Course Description

FROM:

Interdisciplinary reading, writing and research focusing on the various ways knowledge is produced and articulated within the academy. Through aninterdisciplinary process of inquiry, several required projects will emphasize different modes of research and information literacy.

D. Department of Communications and Performing Arts

1. SPE 1100, Listening and Speaking Skills

Change: Course Description

FROM:

To strengthen oral language abilities and improvelistening proficiency, students are made aware of thenature of their language. Focus is on vocabularyenrichment, word pronunciation, attention to grammar, verbal self-expression, listening as a skill and note takingtechniques. Not open to students at ENG 1200 level or higher. Recommended for students at the ENG 91, 92, OR 93 level. Flexible Core: Creative Expression (Group C)

2. SPE 2100, Effective Public Speaking Change: Course Description

FROM:

TO:

Credits: 0 credits, 3 equated credits

Hours: 3 hours

TO:

Multidisciplinary reading, writing and research focusing on the various ways knowledge is produced and articulated within the academy. Through a multidisciplinary process of inquiry, several required projects will emphasize different modes of research and information literacy.

TO:

An introductory course in listening and speaking including the basics of human communication, verbal and nonverbal communication, and elements of listening with an emphasis on critical listening. Students will develop and deliver several presentations as well as evaluate the presentations of their peers. Not open to students at ENG 1200 level or higher. Flexible Core: Creative Expression (Group C)

TO:

The basic elements for clear and effective public speaking. Practice and study in skills such as organizing and outlining speeches, developing ideas, using audiovisual materials for clarification and amplification of ideas, techniques of extempore and impromptuspeaking, methods of delivery. All basic elements are brought together through the presentation of several speeches. Flexible Core: Creative Expression (Group C)

The basic elements for clear and effective public speaking. Practice and study in skills such as organizing information, researching and outlining speeches, developing ideas for a particular audience, using media for clarification and amplification of ideas, and speaking extemporaneously. Students will review the history of public speaking, analyze speeches and bring together all basic elements of public speaking through their own presentation of formal and informal speeches to inform and persuade. Flexible Core: Creative Expression (Group C)

3. THA 6000, Introduction to Costume and Makeup

Change: Title and Course Descriptions

FROM:

Introduction to Costume and Makeup

FROM:

Fundamentals of visual design theory and aesthetics for theatrical costume will be learned through theoretical aswell as experimental application. Students will learn the common practices of the design process through sketches, collage, and rendering techniques. Students will also be introduced to the basic sewing techniques necessary for the current industry.

E. Department of Health, Physical Education and Recreation

1. COH 1200, Critical Issues in Community Health Change: Pre/Co-Requisite

FROM:

Prerequisite: None Corequisite: None Pre/Co-requisite: None TO:

Introduction to Costuming and Make-Up

TO:

Through this course, students will learn the fundamentals of theatrical costuming and make-up for the stage. Students will gain skills in wardrobe supervision, costume management, wardrobe organization, alterations and repairs, make-up application, as well as basic sewing techniques necessary for the current entertainment industry. Students will learn the basic principles of costume design, as well as how to examine renderings and drawings for information regarding costume construction and make-up application.

TO:

Prerequisite: None Corequisite: None

Pre/Co-requisite: COH 1100

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2. COH 1300, Epidemiology

Change: Prerequisite

FROM:

Prerequisite: A passing score on the COMPASS parts 1

and 2 or a passing grade in MAT M200

Corequisite: None Pre/Co-requisite: None

3. COH 2000, Community Health Interventions

Change: Prerequisite

FROM:

Prerequisite: None Corequisite: None Pre/Co-requisite: None

4. EXS 91X6, Field Experience in Exercise Science

Change: Course Description

FROM:

Supervised fieldwork in a commercial, corporate or cardiac rehabilitation fitness center. Open only to Exercise Science majors. Hours to be arranged by department.

F. Department of Mathematics & Computer Science

1. CIS 1500, Applied Computer Architecture

Change: Credit Hours

TO:

Prerequisite: **COH 1200 and** a passing score on the COMPASS parts 1 and 2 or **successful completion of**

mathematics remediation.

Corequisite: None Pre/Co-requisite: None

TO:

Prerequisite: **COH 1200**Corequisite: None
Pre/Co-requisite: None

TO:

Under staff supervision, students will provide personal training services in Kingsborough's oncampus faculty/staff fitness clinic; provide student oversight during open recreational hours in Kingsborough's fitness center; design and lead group fitness activities for students. Students are required to have certification in adult cardiopulmonary resuscitation with automated external defibrillator and must have appropriate liability insurance. Both must be valid for the entire semester. Open only to Exercise Science majors. Hours to be arranged by department.

FROM:	TO:
Credits: 3	Credits: 3
Hours: 3	Hours: 4 (2 lecture, 2 lab)
G. Department of History, Philosophy, and political Science 1. HIS 5200, Roots of the Modern World, Change: Course Title and Course Description	
FROM:	TO:
Roots of the Modern World	Europe in the Middle Ages: Politics, Culture and Society
FROM:	TO:
The main themes of Western civilization from the Middle Ages to the 18th century. The nature of medieval society, birth of modern capitalism, expansion of Europe, the Renaissance, religious revolution of the 16th century, emergence of modern science, and the Age of Reason.	Study of ideas, institutions, and culture of European Civilization from Late Antiquity through the Middle Ages and Early modern Period. Topics surveyed include the political and spiritual transformation of the Roman Empire; Medieval monarchy, religion, commerce, and everyday intellectual life; and the transition into the Early Modern period marked by the Renaissance, the Reformation, and commercial exploration.
2. HIS 6600, Women in the Social Sciences Change: Course Title and Course Description	
FROM:	TO:
Women in the Social Sciences	Introduction to Women's and Gender Studies
FROM:	TO:

An interdisciplinary study of women from a historical and-multicultural perspective focusing on the socio-historical and political position of women. Social science and-feminist theories are used to analyze gender inequality in-society. Gender differences are analyzed to understand-women's historical and present social positions. Cross-cultural views of gender are also explored. Race, class, age and sexual orientation as well as gender are central analytical themes revealing the diversity of women's-lives.

This course, required for the Women's and Gender Studies Concentration, provides an interdisciplinary and multicultural introduction to the socio-political position of women, as well as to gender as an analytic category. The course examines the ways that gender intersects with race, class, age, ethnicity, religion, nationality, and sexual orientation to shape women's diverse experiences. Topics include: the history of women's movements in the U.S., transnational feminism, white privilege, women's sexuality and sex-positive feminisim, the impact of media on gender roles, and issues for women in the workplace.

3. PHI 7000, Problems in Philosophy: God Change: Course Title **and** Course Description

FROM:

Problems in Philosophy: God

FROM:

Evaluation of enduring questions in the three main fields of philosophical inquiry through the lens of the three major philosophical issues, i.e., God, human nature, and the nature of reality of the universe. Is there a Creator? What is reality? Is there such a thing as human nature? Do we have souls? How do we know anything? What is the meaning of life? How should we love? In addition to the Traditional methods in Western philosophy, students will explore alternative perspectives, e.g., Asian, African, Native American, mystical, and other approaches.

4. PHI 7100, History of Philosophy: The Classical Philosophers

Change: Course Title and Course Description

FROM:

History of Philosophy: The Classical Philosophers

FROM:

TO:

Introduction to Philosophical Problems

TO:

Introduction to philosophical problems, such as the nature and scope of knowledge, the existence of God, free will, the mind-body problem, the nature of the self, and the nature of moral judgements.

Multiple perspectives will be considered, e.g.,
Western, Asian, mystical, etc.

TO:

History of Ancient Philosophy

TO:

Philosophical thought and its influence on modern manwith emphasis on classical Greece, India, and China.

Focus is on the work of Plato, Aristotle, Confucius, Lao Tsu.

Development of classical philosophy of the ancient period, focusing on the thought of such thinkers as Socrates, Plato, Aristotle, Buddha, Confucius, and Lao Tsu.

5. PHI 7200, History of Philosophy: The Modern Philosophers

Change: Course Title and Course Description

FROM:

History of Philosophy: The Modern Philosophers

FROM:

Philosophical thought from the Renaissance to the present with emphasis on Cartesian thought, natural religion, skepticism, idealism, and existentialism. Focusis on the works of Descartes, Spinoza, Hume, Nietzsche, Kierkegaard.

6. PHI 7400, Ethics: A Study of Ethical Problems Change: Course Title **and** Course Description

FROM:

Ethics: A Study of Ethical Problems

FROM:

Ethical and moral theories from the Greek philosophersto the present. Problems which are constant in humanhistory will be examined against the background ofvarious classical and modern writers.

7. PHI 7700, Philosophy of Religion Change: Course Description

FROM:

Introduction to the major metaphysical, epistemological and religious approaches to the fundamental questions of human existence. A comparative analysis of the varying concepts of divinity found in the religious traditions of the world.

TO:

History of Modern Philosophy

TO:

Development of philosophy from the Renaissance to the present, focusing on the works of such thinkers as Descartes, Leibniz, Spinoza, Hobbes, Locke, Berkeley, Hume, Kant, Nietzsche, and Kierkegaard.

TO:

Introduction to Ethics

TO:

The standards of right conduct and the good life in classical and contemporary ethical theories will be examined. Critical thinking skills in the application of these standards to moral issues will be developed.

TO:

A philosophical examination of basic concepts found in the world's diverse religious traditions, such as God, religious meaning, faith, and religious experience. Readings may be drawn from classical and contemporary sources.

Change: Course Description

FROM:

Ethical issues of globalization, human rights and global crises. Students engage in co-curricular service—learning, civic engagement component, such as the Salzburg Global Seminar International Study Program, or the Student World Assembly.

- H. Department of Physical Sciences
- 1. CHM 1100, General Chemistry I

Change: Prerequisites and Course Description

FROM:

Prerequisites: MAT 900 or a passing score on the COMPASS parts 1 and 2 or a grade in MAT M200; and either CHM 100 or passing exemption exam for CHM 100. Contact department for exemption exam information.

FROM:

TO:

Ethical issues of globalization, human rights and global crises. Students engage in a co-curricular civic-engagement component, such as the Salzburg Global Seminar International Study Program or the Student World Assembly.

TO:

Prerequisites: MAT 900 or a passing score on the COMPASS parts 1 and 2 or a grade in MAT M200; and either **CHM 200 or** CHM 100, or passing **score on chemistry exemption exam.** Contact department for **chemistry** exemption exam information.

TO:

Two-semester classroom and laboratory course. First term introduces: the mole concept, stoichiometry, thermochemistry, atomic structure, periodic properties, bonding (especially of carbon compounds), the gaseous, liquid and solid states, phase changes, electrolytes and the properties of selected elements in relation to environmental problems

First of a two-semester lecture and laboratory sequence intended for science and engineering majors. Lecture topics include: atomic theory, stoichiometry of chemical reactions, types of reactions, introduction to acid-base, solubility, and reduction-oxidation chemistry, thermochemistry, quantum mechanical description of atoms, the elements and the periodic table, covalent bonding, molecular geometry, properties of real and ideal gases, liquids, and solids, and colligative properties of binary mixtures. Laboratory: An experimental approach to chemical sciences with emphasis on developing fundamental, reproducible laboratory technique and a goal of understanding achieving precision and accuracy in laboratory experiments. Proper use of laboratory equipment and standard wet chemical methods are practiced. Areas of investigations include acid-base, precipitation, and reduction-oxidation chemistry, thermochemistry, ideal gases, spectroscopy, and green chemistry.

2. CHM 1200, General Chemistry II Change: Course Description

FROM: TO:

Study of chemical kinetics, equilibrium, acids, bases, salts, weak electrolytes and pH, solubility, entropy and free energy, electrochemistry, transition metal chemistry, nuclear chemistry and selected topics in organic chemistry. Laboratory experiments includes classical and modern chemistry methods.

Second semester of a two-semester lecture and laboratory sequence intended for science and engineering majors. Lecture topics include: introduction to kinetics, physical and chemical equilibria, acid-base and solubility equilibria, thermodynamics, electrochemistry, coordination chemistry, and introductions to nuclear, main group, and organic chemistry. Laboratory: An experimental approach to chemical sciences with emphasis on developing fundamental, reproducible laboratory technique and a goal of understanding and achieving precision and accuracy in laboratory experiments. Proper use of laboratory equipment and standard wet chemical methods are practiced. Areas of investigations include acid-base, precipitation, and reduction-oxidation equilibria, spectroscopy, qualitative analysis, electrochemistry, and chemical synthesis.

3. SCI 3700, Developments in the Physical Sciences and

the Environment

Change: Title &Credits

FROM:

Developments in the Physical Sciences and the Environment

FROM:

Credits: 4 Hours: 5

4. SCI 5100, Chemistry and the Environment

Change: Title and Credits and Course Description

FROM:

Chemistry and the Environment

FROM:

Credits: 4 Hours: 5 TO:

Developments in the Physical Sciences (With Laboratory)

TO:

Credits: 3

Hours: 5 (1 lecture, 4 lab)

TO:

Physical Sciences and the Environment (With Laboratory)

TO:

Credits: 3

Hours: 5 (1 lecture, 4 lab)

FROM:

TO:

An investigation of important topics that involve the state of the environment from a scientific perspective. This course will cover topics that include global warming, stratospheric ozone depletion, acid rain, the carbon and nitrogen cycles, chemical and industrial pollution, the impact of fossil fuels, nuclear energy, and treatment.

An investigation of important topics that involve the state of the environment from a scientific perspective. This course will cover topics that include global warming, stratospheric ozone depletion, acid rain, the carbon and nitrogen cycles, chemical and industrial pollution, the impact of fossil fuels, nuclear energy, and treatment. The gathering, analysis, interpretation, and presentation of scientific data. The measure of selected physical, chemical and geological properties that influence the structure and function of ecological systems. Selected standard techniques used to observe, sample and describe natural systems.

3. SCI 7000, The Science of Nutrition

Change: Title and Credits and Prerequisites

FROM:

The Science of Nutrition

FROM:

Credits: 4 Hours: 5

FROM:

Prerequisites: Passing scores on the CUNY Reading and

Writing-exams.
Corequisites: None

Pre/Co-requisites: None

I. Department of Tourism and Hospitality

1. CA 100, Culinary Arts I: Skills

Change: Prerequisite

FROM:

Prerequisite: Passing Score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing MAT

M100

Corequisite: None

Pre/Co-requisite: TAH 7100

TO:

The Science of Nutrition (With Laboratory)

TO:

Credits: 3

Hours: 5 (1 lecture, 4 lab)

TO:

Prerequisites: Passing scores on CUNY Reading and

Writing or Department Permission

Corequisites: None Pre/Co-requisites: None

TO:

Prerequisite: Passing Score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing MAT

M100

Corequisite: None

Pre/Co-requisite: TAH 7100 and CA 990

2. CA 1100, Baking and Pastry

Change: Prerequisite

FROM:

Prerequisite: Passing Score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing MAT

M100

Corequisite: None Pre/Co-requisite:

3. CA 5000, Food and Beverage Cost Control

Change: Prerequisite

FROM:

Prerequisite: Passing Score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing MAT

M100

Corequisite: None Pre/Co-requisite:

4. CA 7400, Menu and Dining Room Management

Change: Prerequisite

FROM:

Prerequisite: None Corequisite: None

Pre/Co-requisite: TAH 7100

5. TAH 7100, Introduction to Foodservice Operations

Change: Pre/Co-Requisite

FROM:

Prerequisite: None Corequisite: None Pre/Co-requisite: None

VIII. DELETION OF COURSES

A. Department of Communications and Performing Arts

1. MUS 22, Music of the Twentieth Century

2. MUS 3000, Rudiments of Theory

3. MUS 9121 Chorus

B. Department of Physical Sciences

TO:

Prerequisite: Passing Score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing MAT

M100 and CA 990

Corequisite: None

Pre/Co-requisite: None

TO:

Prerequisite: Passing Score on Part 1 on the CUNY Mathematics Skills Test (COMPASS) or passing MAT

M100 and CA 990

Corequisite: None

Pre/Co-requisite: None

TO:

Prerequisite: None Corequisite: None

Pre/Co-requisite: TAH 7100 and CA 990

TO:

Prerequisite: None Corequisite: None

Pre/Co-requisite: CA 990

1. SCI 5100LB, Chemistry and the Environment