

**LETTER OF ARTICULATION BETWEEN
THE BOROUGH OF MANHATTAN COMMUNITY COLLEGE
CITY UNIVERSITY OF NEW YORK
AND
YORK COLLEGE CITY UNIVERSITY OF NEW YORK**

Agreement initiated by: Borough of Manhattan Community College (BMCC)

Sending College: <u>Borough of Manhattan Community College</u>	Receiving College: <u>York College</u>
Department: <u>Science</u>	Department: <u>Chemistry</u>
Program: <u>Science</u>	Program: <u>Pharmaceutical Sciences</u>
Degree: <u>A.S.</u>	Degree: <u>B.S.</u>

PURPOSE

York College and Borough of Manhattan Community College (BMCC) hereby enter into this agreement to facilitate an opportunity for students who wish to transfer from BMCC’s Associate of Science degree in Science to York College’s Bachelor of Science degree in Pharmaceutical Sciences. This agreement specifies the conditions and requirements necessary for BMCC students to transfer to York College with no loss of credit.

CHANGES

Neither party may change this agreement unilaterally. Proposed changes in policies or curricula by either party must be communicated in writing to the other party and agreed upon in consultation with relevant officials of each institution. Any changes agreed upon must be signed, dated, and attached to this agreement.

NOTICE OF CANCELLATION

Either party may independently cancel this agreement by notifying the other party no less than one academic year before the intended date of cancellation.

ADMISSION REQUIREMENTS

All students transferring from BMCC’s Associate in Science program to York College’s Pharmaceutical Sciences program must meet the following general requirements:

- 1) Students must have a cumulative grade point average of at least 2.0 on a 4.0 scale.
- 2) York College will accept transfer credits only, not course grades.
- 3) Except for students entering with an Associates Degree, all courses must be completed with a grade of “C” or higher to be accepted as transfer.
- 4) At most 68 semester credits will be accepted towards the York College B.S. degree in Pharmaceutical Sciences.
- 5) Students eligible for transfer to York College under this agreement must have met at least the minimum requirements for admission to BMCC, including a U.S. high school diploma.
- 6) During the period of this agreement, both institutions agree:
 - a) To monitor the academic performance of BMCC students who wish to matriculate at York College under this agreement, identify problems, and work cooperatively to ensure smooth transfer with minimal academic disruption.
 - b) To notify each other concerning any contemplated curricular changes, which would affect the future of this agreement.

Total transfer credits granted toward baccalaureate degree: 60-68

Total additional credits required at the senior college level to complete degree: 52-60

**SCIENCE MAJOR AT BOROUGH OF MANHATTAN COMMUNITY COLLEGE
COURSE EQUIVALENCY LISTING FOR THE PHARMACEUTICAL SCIENCES AT DEGREE YORK COLLEGE**

COURSE TO COURSE EQUIVALENCIES AND TRANSFER CREDIT AWARDED						
SECTION I – York General Education Requirements 50 Credits						
BOROUGH OF MANHATTAN COMMUNITY COLLEGE			YORK COLLEGE EQUIVALENT			Transfer Credit Granted
General Requirements (29-31 credits)			General Education Requirements (50 credits)			
Course	Description	Cr	<i>Students with an A.A., A.S. or A.A.S. degree from a CUNY or SUNY community college, with the exception of students in the Nursing Program, will have fulfilled the General Education Requirements except for Writing 301, 302 or 303. Students may still have to take some courses included in the GER if they are required by their major, or they are prerequisites for other courses.</i>			29-31
ENG 101	English Composition I	3				
ENG 201	English Composition II	3				
SPE 100	Fundamentals of Speech	3				
XXX XXX	Social Science Electives	6				
HED 100	Health Education	2				
MUSIC 110 or ART 110	Introduction to Music OR Art Survey	2				
MAT 206	Foundations for Calculus	4				
XXX XXX	Modern Foreign Language	3-4				
XXX XXX	Modern Foreign Language	3-4				
Total General Requirement Credits		29-31				
CREDITS TRANSFERRED INTO YORK GER (from section I)						29-31

SECTION II – Additional York General Education Requirements						
Please Note: Although PHY 215 and MAT 301 are NOT considered General Requirements at BMCC, they will transfer into York's General Education Requirement and make up 8 of the 50 credits required						
Course	Description	Cr	Course	Description	Cr	Cr Granted
PHY 215#	University Physics I	4	PHYS 151	University Physics I	5	4*
MAT 301	Analytic Geometry & Calculus I	4	MAT 121	Analytic Geometry and Calculus I	4	4
CREDITS TRANSFERRED INTO YORK GER (from section II)						8
MAXIMUM BMCC CREDITS TRANSFERRED INTO YORK GER (from Sections I & II)						37-39

SECTION III – York Pharmaceutical Science Major Requirements 70 Credits						
Please Note: Students can choose any combination of the following courses to satisfy their curriculum and elective requirements at BMCC. A maximum of 29 Science credits will be transferred into York's Pharmaceutical Science Major.						
Program Requirements and Elective (31+ credits)			Pharmaceutical Major (70 credits)			Cr Granted
Course	Description	Cr	Course	Description	Cr	
BIO 210	Biology I	4	BIO 201	Biological Principles I	4	4
BIO 220	Biology II	4	BIO 202	Biological Principles II	4	4
CHE 201	College Chemistry I	4	CHEM 101	Chemical Principles I	5	4*
CHE 202	College Chemistry II	4	CHEM 102	Chemical Principles II	5	4*
PHY 210	Physics I	4	PHYS 151	University Physics I	5	4*
PHY 220	Physics II	4	PHYS 152	University Physics II	5	4*
PHY 225#	University Physics II	4	PHYS 152	University Physics II	5	4*
CHE 230	Organic Chemistry I	5	CHEM 231	Organic Chemistry I	3	5
			CHEM 232	Techniques of Organic Chemistry I	2	
CHE 240	Organic Chemistry II	5	CHEM 233	Organic Chemistry II	3	5
			CHEM 234	Techniques of Organic Chemistry II	2	

MAT 302	Analytic Geometry & Calculus II	4	MAT 122	Analytic Geometry and Calculus II	4	4
SCI 120	Computer Methods in Science	4	<i>Not Transferrable into Pharmaceutical Program</i>			
SCI 140	Introduction to Microprocessors	4				
SCI 430	Scientific Instrumentation	4				
BIO 230	Principles of Microbiology	4				
BIO 240	Genetics	4				
CHE 120	Fundamentals of Organic Chemistry	4				
MAXIMUM BMCC CREDITS TRANSFERRED INTO YORK PHARMACEUTICAL MAJOR (from Sections III)						29
REMAINING PHARMACEUTICAL SCIENCE CREDITS TO BE COMPLETED AT YORK						41-46
MAXIMUM CREDITS TRANSFERRED TO YORK						60-68
TOTAL REMAINING CREDITS TO BE COMPLETED AT YORK						55-63

*: Only the credits earned at BMCC will be transferred to York College. Students will be required to take Electives to complete 120 credits for B.S.

#: BMCC students taking PHYS 215 and PHYS 225 as their science electives will have to take 3 more credits to complete their foundation courses at York College.

**Students who do not take Mat 301 and Phys 215 at BMCC will be required to take them at York College to satisfy the General Education Requirement. All BMCC transfer students will be required to take Writing 301, 302, or 303 at York College.

SECTION B

YORK COLLEGE UPPER DIVISION COURSES REMAINING FOR BACCALAUREATE DEGREE

70 PROGRAM CREDITS REQUIRED FOR THE PHARMACEUTICAL SCIENCES MAJOR

1. YORK COLLEGE REQUIRED FOUNDATION COURSES (32 CREDITS)						
BMCC EQUIVALENT			YORK COLLEGE REQUIREMENT			
Course	Description	Cr	Course	Description	Cr	Cr Granted
BIO 210	Biology I	4	BIO 201	Biological Principles I	4	4
BIO 220	Biology II	4	BIO 202	Biological Principles II	4	4
CHE 201	College Chemistry I	4	CHEM 101	Chemical Principles I	5	4*
CHE 202	College Chemistry II	4	CHEM 102	Chemical Principles II	5	4*
CHE 230	Organic Chemistry I	5	CHEM 231	Organic Chemistry I	3	5
			CHEM 232	Techniques of Organic Chemistry I	2	
CHE 240	Organic Chemistry II	5	CHEM 233	Organic Chemistry II	3	5
			CHEM 234	Techniques of Organic Chemistry II	2	
MAT 302	Analytic Geometry and Calculus II	4	MATH 122	Analytic Geometry and Calculus II	4	4

2. PHARMACEUTICAL SCIENCES REQUIREMENTS (32 CREDITS)						
BMCC EQUIVALENT			YORK COLLEGE REQUIREMENT			
Course	Description	Cr	Course	Description	Cr	Cr Granted
<i>No BMCC Course Equivalents All Pharmaceutical Sciences Requirements To be Completed at York College</i>			BIO 265	Clinical Microbiology	3	0
			CHEM 310	Inorganic Chemistry	3	0
			CHEM 341	Instrumental Methods of Analysis I	3	0
			CHEM 342	Instrumental Methods of Analysis II	3	0
			CHEM 321	Physical Chemistry I	3	0
			CHEM 322	Physical Chemistry II	3	0
			PHYS 152	University Physics II	5	4*
			PHS 301	Pharmaceutics	3	0
			PHS 350	Pharmaceutical Manufacturing	3	0
			PHS 401	Pharmacology	3	0

3. PHARMACEUTICAL SCIENCES ELECTIVE COURSES Choose one from courses listed below (3 CREDITS)						
BMCC EQUIVALENT			YORK COLLEGE REQUIREMENT			
Course	Description	Cr	Course	Description	Cr	Cr Granted
<i>No BMCC Equivalent – Requirement Completed at York</i>			PHS 480	Research in Pharmaceutical Science	3	0
			PHS 490	Internship in Pharmaceutical Science	3	0

4. PHARMACEUTICAL SCIENCES ELECTIVE COURSES Choose one from courses listed below (3 CREDITS)						
BMCC EQUIVALENT			YORK COLLEGE REQUIREMENT			
Course	Description	Cr	Course	Description	Cr	Cr Granted
<i>No BMCC Equivalent – Requirement Completed at York</i>			CHEM 330	Structure and Mech. in Biochemistry	3	0
			CHEM 412	Biochemistry	3	0

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York College agrees to accept into the Bachelor of Science degree program in Pharmaceutical Sciences students from the Borough of Manhattan Community College who successfully complete the Science curriculum described in Section B, thereby receiving an Associate of Science degree. Successful completion of the Science curriculum at Borough of Manhattan Community College includes attainment of at least a 2.0 overall grade-point average.

Borough of Manhattan Community College and York College agree to notify each other if curriculum requirements, course numbers, content or catalog descriptions change. Furthermore, the parties involved understand that any change in curriculum requirements, course number, and content or catalog description may require modification to this agreement.

It is also understood that the Science Department at Borough of Manhattan Community College will identify students who wish to participate in the articulation, and will recommend the Pharmaceutical Science program at York College to those who successfully complete the Science curriculum.

Effective: September 1, 2008