ARTICULATION AGREEMENT FORM

A. SENDING AND RECEIVING INSTITUTIONS

Sending College: Borough of Manhattan Community College
Department: Science
Program: Biotechnology Science
Degree: Associate in Sciences (A.S.)

Receiving College: York College
Department: Biology
Program: Biotechnology
Degree: Bachelor of Science (B.S.)

B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

- The A.S. degree and a minimum GPA of 2.0
- Successful completion of a 3 credit college-level math course
- Grade of C or better in freshman composition, its equivalent, or a higher-level English course

Total transfer credits granted toward the baccalaureate degree: 60

Total additional credits required at the senior college to complete baccalaureate degree: 60

Total credits required to complete the baccalaureate degree: 120

C. TRANSFER CREDIT AWARDED

Borough of Manhattan Community College (BMCC) graduates who complete the Associate in Science (A.S.) degree in Biotechnology Science will receive 60 credits toward the Bachelor of Science (B.S) degree in Biotechnology at York College.

Borough of Manhattan Community College		**York College**		
Course Number & Title	**Credits**	**Course Number & Title**	**Credits**	**Credits Awarded**
Required Core				
ENGL 101 English Composition	3	**ENG 125** English Composition I: Introduction to College Writing	3	3
ENGL 201 Introduction to Literature	3	**ENG 126** English Composition II: Writing About Literature	3	3
MAT 206 Precalculus	3	**MATH 120** Pre-Calculus	4	4
CHE 230 Organic Chemistry I	3	**CHEM 231** Organic Chemistry I **CHEM 232** Techniques in Organic Chemistry I	3 2	5
Subtotal	**12**		**Subtotal**	**15**
Flexible Core				
World Cultures & Global Issues	3	**World Cultures & Global Issues**	3	3
U.S. Experience In Its Diversity	3	**U.S. Experience In Its Diversity**	3	3
Creative Expression	3	**Creative Expression**	3	3
Individual and Society	3	**Individual and Society**	3	3
Scientific World **CHE 240** Organic Chemistry II	3	**Scientific World** **CHEM 233** Organic Chemistry II **CHEM 234** Techniques in Organic Chemistry II	3 2	5
Scientific World **BTE 201** Introduction to Biotechnology	3	**Scientific World** **BTEC 302** **BIO 999**	4 1	4 1
Subtotal	**18**		**Subtotal**	**22**
Pathways Total	**30**		**Pathways Total**	**37**

Curriculum Requirements				
BIO 210 Biology I	4	**BIO 202** Biological Principles II	4	4
BIO 220 Biology II	4	**BIO 201** Biological Principles I	4	4
BIO 240 Genetics	4	**BIO 301** Molecular Biology and Biotechnology	4	4
CHE 201 Chemistry I	4	**CHEM 108** Principles of Chemistry I **CHEM 109** Principles of Chemistry I Laboratory	3 1	4
CHE 202 College Chemistry II	4	**CHEM 111** Principles of Chemistry II **CHEM 112** Principles of Chemistry II Laboratory	3 1	4
General Elective	10	**General Elective**	3	3
Curriculum Subtotal	**30**		**Curriculum Subtotal**	**23**
Total for AS degree	**60**		**Total for AS degree**	**60**

D. SUMMARY OF TRANSFER CREDITS FROM BMCC AND CREDITS TO BE COMPLETED AT YORK

Biotechnology, B.S.	Total Credits for the B.S degree	Transfer Credits From BMCC	Credits to be Completed at York
General Education	30	30	0
Major Requirements	69.5-71.5	20	49.5-51.5
Electives	18.5-20.5	10	8.5-10.5
Total	**120**	**60**	**60**

BMCC Course	***York Equivalency***
ENG 101 – English Composition	ENG 125 English Composition I: Introduction to College Writing
ENG 201 – Introduction to Literature	ENG 126 English Composition II: Writing About Literature
BTE 201 – Introduction to Biotechnology	BTEC 302 Theory and Methods in Biotechnology and Biopharmaceuticals
MAT 206 - Pre-Calculus	MATH 120 – Pre-Calculus
MAT 301 - Analytic Geometry & Calculus 1	MATH 121 Analytic Geometry & Calculus 1
CHE 230 – Organic Chemistry 1	CHEM 231/232 – Organic Chemistry 1
CHE 240 – Organic Chemistry 2	CHEM 233/234 – Organic Chemistry 2
CHE 201 – College Chemistry 1	CHEM 108/109 – Principles of Chemistry 1
CHE 202 – College Chemistry 2	CHEM 111/112 – Principles of Chemistry 2
BIO 210 – Biology 1	BIO 201 – Biological Principles 1
BIO 220 – Biology 2	BIO 202 – Biological Principles 2
BIO 240 - Genetics	BIO 301 – Molecular Biology and Biotechnology

E. REMAINING CREDITS FOR THE BACCALAUREATE DEGREE

Students will be required to take the following courses at York College after completing the A.S. in Biotechnology.

General Education Requirements (College Option)	
Course Number & Title	**Credits**
Writing Intensive course at the 200-level or higher: (Fulfilled by **BTEC 480** below)	0
Writing Intensive course at the 200-level or higher OR WRIT 300-level course: (Fulfilled by **BTEC 489** below)	0
Subtotal	**0**
I. Required Foundation Courses	
MATH 121 Analytic Geometry Calculus I	4
PHYS 113 Physics Laboratory I	1
PHYS 114 Physics Laboratory II	1
PHYS 115 College Physics I	4
PHYS 116 College Physics II	4
Subtotal	**14**
II. Biotechnology Requirements	
BIO 412 Biochemistry OR **CHEM 412** Biochemistry	3
BTEC 352 Bioinformatics	3
BTEC 480 Theory and Experimentation in Biotechnology (WI)	5
BTEC 489 Special Topics in Biotechnology (WI)	3
Subtotal	**14**
III. Biotechnology Options	
Choose 7.5 – 9.5 credits chosen from the following:	7.5-9.5
BIO 307 Biostatistics	3
BIO 320 Cell Biology	4.5
BIO 415 Biochemistry and Molecular Biology	2
BIO 444 Genetics	4.5
BIO 452 Developmental Biology	4.5
BIO 465 Microbiology	4.5
BIO 466 Immunology	4.5
BTEC 350 Computational Biology and Molecular Design	3
Subtotal	**7.5-9.5**
Free Electives	**22.5-24.5**
Total Credits Required for B.S. in Biotechnology	**120**

F. ARTICULATION AGREEMENT FOLLOW-UP PROCEDURES

1. *Procedures for reviewing, updating, modifying or terminating agreement:*
   When either of the degree programs involved in this agreement undergoes a change, the agreement will be reviewed and revised accordingly by faculty from each institution's respective departments or programs, selected by their Chairpersons and/or program directors.

2. *Procedures for evaluating agreement (i.e., tracking the number of students who transfer under the articulation agreement and their success):*
   Each year York College will provide BMCC the following information: a) the number of BMCC graduates who applied to the program; b) the number of BMCC students who were accepted into the program; c) the number of BMCC students who enrolled; and d) the aggregate GPA of these enrolled students at York College.

3. *Sending and receiving college procedures for publicizing agreement (e.g., college catalogs, transfer advisers, websites, etc.):*
   - This articulation agreement will be publicized on the BMCC website, and the York College website.
   - Transfer advisors at BMCC will promote this agreement to eligible students.

Additional Information:

Students transferring to York College must complete at least 40 credits at York, with at least half of the credits in the major program taken at York College.

If more than 64 credits are transferred students may not graduate with honors. A minimum of 56 credits must be completed at York College to graduate with honors