



## ARTICULATION AGREEMENT FORM

**College of Agreement Initiation:** New York City College of Technology

### A. SENDING AND RECEIVING INSTITUTIONS

*Sending College:* Borough of Manhattan Community College

*Department:* Teacher Education

*Program:* Mathematics & Science for Secondary Education (Specialization in Mathematics)

*Degree:* Associate in Science

*Receiving College:* New York City College of Technology

*Department:* Mathematics

*Program:* Mathematics Education

*Degree:* Bachelor of Science

---

### B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

Students must:

- satisfy the College requirements for admission into a baccalaureate program;
- be eligible to enroll in MAT 1475 or higher;
- have a minimum cumulative GPA of 3.0\*; and
- submit an application, write an essay and be interviewed by program director.

\* Exceptions can be granted by the Mathematics Education Program director.

Total transfer credits granted toward the baccalaureate degree: 60

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

**C. COURSES TRANSFERRED FROM BOROUGH OF MANHATTAN COMMUNITY COLLEGE (BMCC)**

Students transferring from BMCC with an Associate Degree in: Mathematics & Science for Secondary Education (Specialization in Mathematics) shall enter the Bachelor of Science in Mathematics Education program at NYCCT as juniors. They will have the following courses transferred to NYCCT.

**COURSE-TO-COURSE EQUIVALENCIES AND TRANSFER CREDIT AWARDED**

BMCC		NYCCT	
Course and Title	Credits		Credits
<b><i>Required Common Core (14)</i></b>			
English Composition	6	English Composition	6
Life and Physical Sciences Choose one of the following: General Astronomy - AST 110 (4cr.) OR Biology I - BIO 210 (4cr.) OR College Chemistry I - CHE 201 (4cr.) OR General Physics - PHY 110 (4cr.) OR Physics I - PHY 210 (4cr.)	4	Life and Physical Sciences	4
Mathematical and Quantitative Reasoning Required MAT 206 Precalculus or higher	4	Mathematical and Quantitative Reasoning	4
<b><i>Required Flexible Core (19)</i></b>			
Creative Expression FUNDAMENTALS OF SPEECH - SPE 100 OR SPE 102 required (3cr.)	3	Creative Expression COM 1330*	3
World Cultures & Global Issues <b>(Foreign language strongly recommended**)</b>	3	World Cultures & Global Issues <b>(Foreign language required)</b>	3
US Experience in its Diversity	3	US Experience in its Diversity	3
Individual and Society (IS)	3	Individual and Society (IS)	3
Scientific World (SW) PSY 100 required(3cr.)	3	Scientific World (SW)* PSY 1101	3
One additional Flex Core Course Scientific World course required	4	One additional Flex Core Course: Recommended Scientific World course	4
<b><i>Mathematics Core Content Courses (15)</i></b>			
MAT 301 Calculus I	4	MAT 1475 Calculus I	4
MAT 302 Calculus II	4	MAT 1575 Calculus II	4
MAT 303 Calculus III	4	MAT 2675, Calculus III	4
MAT 315 Linear Algebra	3	MAT 2580 Linear Algebra	3
<b><i>Pedagogical Core (12)</i></b>			
EDS 201 Adolescent Development	3	EDU3610 Human Learning and Instruction	3
EDU 202: Urban Schools in a Diverse American Society OR	3	MEDU 1010 Foundations of Mathematics Education OR	3
EDS 202 Special Topics in Secondary School Education		EDU 3670: Methods of Literacy Instruction	
HIS 101: Western Civilization	3	Additional Liberal Arts	3
ENG 391 or ENG 392 or MUS 103 or ART 103	3	Additional Liberal Arts	3
<b>TOTAL</b>	<b>60</b>		<b>60</b>

\*May transfer as IS, if more advantageous: COM 1330 and PSY 1101 are in the Individual and Society flexible core at NYCCT.

\*\*If the foreign language requirement has not been satisfied, an additional course will be needed at NYCCT. The foreign language requirement may be met in any one of the following ways: Successful completion of a 3-credit foreign language course at NYCCT or transferred from another college; Earning a score of 85 or higher on the New York State Regents examination in a foreign language; A score of 4 or better on the advanced placement examination in a foreign language; Satisfactory completion of a College Level Examination Program (CLEP) test in a foreign language; Graduation from a higher education institution with a bachelor's degree or its equivalent, in which the language of instruction was other than English.

Students that transfer to NYCCT after earning the AS in Math & Science for Secondary Education (Specialization in Mathematics) at BMCC by completing the 60 credits shown above, will be required to satisfactorily complete the following 60 credits at NYCCT in order to earn the BS in Mathematics Education.

**D. SENIOR COLLEGE COURSES REMAINING FOR COMPLETION OF BACCALAUREATE DEGREE<sup>1,2, 3, 4</sup>**

<b>Course and Title</b>	<b>Credits</b>
<b>Mathematics Core Content Courses (22)<sup>2</sup></b>	
MAT 1372 Statistics with Probability	3
MAT 2571 Introduction to Proofs and Logic (advanced liberal arts, WI)	4
MAT 3050 Geometry	4
MAT 3075 Introduction to Real Analysis	4
MAT 3080 Modern Algebra	4
MAT 4030 History of Mathematics	3
<b>PEDAGOGICAL CORE (29)<sup>2</sup></b>	
<b>Specialized Pedagogical Courses</b>	
MEDU 1021 Teaching and Learning Strategies for Mathematics Teachers	3
MEDU 2901 Peer Leader Training in Mathematics	1
MEDU 3000 Mathematics of the Secondary School Curriculum	4
MEDU 3001 Methods of Teaching Middle School Mathematics	3
MEDU 3002 Methods of Teaching Secondary School Mathematics (WI)	3
MEDU 3003 Microteaching	3
MEDU 4000 Student Teaching Seminar	4
MEDU 4001 Student Teaching in High School	4
MEDU 4002 Student Teaching in High School	4
<b>Common Pedagogical Core (6)<sup>2</sup></b>	
EDU 2455: Methods and Materials for Special Needs Students	3
MEDU 1010 Foundation of Mathematics Education or EDU 3670: Methods of Literacy Instruction <sup>3</sup>	3
<b>Additional Requirements (3)<sup>2</sup></b>	
Interdisciplinary Course	3
<b>TOTAL</b>	<b>60</b>

<sup>1</sup> In addition to requirements of the AS degree, City Tech bachelor's degree students are required to take one Writing Intensive (WI) course in the Major and one WI course in the liberal arts and sciences. **All graduates must also satisfy CUNY Pathways requirements.**

<sup>2</sup> Complete lists of liberal arts and sciences courses and advanced liberal arts and sciences courses, as well as semester-specific lists of interdisciplinary courses, are available online at the City Tech Pathways website.

<sup>3</sup> Students should take either MEDU 1010 or EDU 3670 as part of the 60 credits taken at City Tech, depending on which equivalent course they have not already taken.

<sup>4</sup> Depends on any additional mathematics or education courses transferred.

## **E. PROCEDURES FOR REVIEWING, UP- DATING, MODIFYING OR TERMINATING AGREEMENT**

Both colleges will confer every three years to review the agreement. Any changes or modifications to program requirements will be reported to the other college subsequent to the date of the change or modification. The agreement will then be updated accordingly. Given notification, both colleges have the right to terminate the agreement at any time.

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, 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 semester, NYCCT will provide BMCC with the following information: a) the number of BMCC students who enrolled; and b) the aggregate GPA of these enrolled students.

3. *Sending and receiving college procedures for publicizing agreement, e.g., college catalogs, transfer advisers, Websites, etc.:*

This articulation agreement will be publicized on BMCC's website and on NYCCT's website. Transfer advisers at BMCC will promote this agreement with eligible students.

BMCC students who plan to transfer into the Mathematics Education degree program at NYCCT are advised to choose the listed Program Requirements indicated in this document in order to satisfy the requirements for the A.S. degree at BMCC and to ensure that the maximum number of credits are transferred to satisfy the Mathematics Education program requirements at NYCCT. Refer to the college website for a list of the general requirements for the A.S. degree.

4. *Campus Updates to Transfer Credit Rules:*

Each college will update their transfer rules in CUNYfirst based on the agreed upon course evaluation, as indicated in this documents. When either college makes course revisions to courses included in the agreement, they will notify the other party.

Effective Date: Fall 2020