



## **ARTICULATION AGREEMENT FORM**

### A. SENDING AND RECEIVING INSTITUTIONS

Sending College:	Borough of Manhattan Community College
Department:	Science
Program:	Engineering Science
Degree:	Associate in Science (A.S.)
Receiving College:	New York City College of Technology
Department:	Construction Management and Civil Engineering Technology
Program:	Construction Engineering Technology
Degree:	Bachelor of Technology (B.Tech)
Receiving College: Department: Program: Degree:	New York City College of Technology Construction Management and Civil Engineering Technol Construction Engineering Technology Bachelor of Technology (B.Tech)

#### B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

(e.g., minimum GPA, audition/portfolio)

• 2.5 overall GPA

Borough of Manhattan Community College (BMCC) graduates with the associate degree in Engineering Science **who select the electives specified in this articulation agreement** will receive 65 transfer credits, with 54 contributory credits toward the Bachelor of Technology in Construction Engineering Technology at New York City College of Technology. (See Section C below, "Course to Course Equivalencies and Transfer Credit Awarded.") In addition, they will be deemed to have met all Required Core and Flexible Core General Education requirements at New York City College of Technology.

Total transfer credits: Total contributory credits from associate degree: Total additional credits required at the senior college to complete baccalaureate degree: Total credits required to earn the B.Tech in Construction Engineering Technology:

## C. TRANSFER CREDITS AWARDED

Borough of Manhattan Community College (BMCC) graduates who complete the Associate in Science (A.S.) degree in Science will receive 54 credits toward the Bachelor of Technology (B.Tech.) degree in Construction Engineering Technology at New York City College of Technology.

Common Core				
Required Common Core				
English Composition: ENG 101 – English Composition I				
English Composition: ENG 201 – Introduction to Literature	3			
Life & Physical Sciences: CHE 201 – General Chemistry I	4			
Mathematical and Quantitative Reasoning: MAT 301 – Analytic Geometry & Calculus I				
Flexible Common Core				
Creative Expression: SPE 100/SPE 102 – Fundamentals of Speech				
Individual & Society				
US Experience in Its Diversity: ECO 201 - Macroeconomics	3			
World Culture & Global Issues	3			
Scientific World: CHE 202 – General Chemistry II AND SCI 120 – Computer Methods in				
Science Tatal Common Com	<u> </u>			
	30			
Major Required Courses				
ESC 111 – Elements of Engineering Design	1			
ESC 113 – Computer Aided Analysis for Engineering				
MAT 302 – Analytic Geometry & Calculus II				
MAT 303 – Analytic Geometry & Calculus III				
MAT 501 – Ordinary Differential Equations				
PHY 215 – University Physics I	4			
PHY 225 – University Physics II	4			
General Elective				
(Please note: These credits will be satisfied by STEM variants taken in the Common Core.				
Elective Courses (9 credits total)				
ESC 131 – Engineering Graphics-AutoCAD				
ESC 201 – Engineering Mechanics I				
GLY 210 – Geology I				
Total Program Credits	65			

## D. COURSE EQUIVALENCIES

BMCC Course	Credits	City Tech Course	Credits
ENG 101 – English Composition I	3	ENG 1101 – English Composition I	3
ENG 201 – Introduction to Literature	3	ENG 1121 – English Composition II	3
MAT 301 – Analytic Geometry & Calculus I	4	MAT 1475 – Calculus I	4
CHE 201 – General Chemistry I	4	CHEM 1110 – General Chemistry I	4
SPE 100/102 – Fundamentals of Speech	3	COMM 1220 – Public Speaking	3
ECO 201 – Macroeconomics	3	ECON 1101 – Macroeconomics	3
PHY 215 – University Physics I	41	PHYS 1441 – General Physics I: Calculus-	5
	4-	Based	3
MAT 302 – Analytic Geometry & Calculus II	4	MAT 1575 – Calculus II	4
MAT 303 – Analytic Geometry & Calculus III	4	MAT 2675 – Calculus III	4
MAT 501 – Ordinary Differential Equations	3	MAT 2680 – Differential Equations	3
PHY 225 – University Physics II	41	PHYS 1442 – General Physics II:	5
	4	Calculus-Based	3
GLY 210 – Geology I		ARCH 3551 – Sustainability, History and	3 + 1
	4	Practice	elective
			credit
SCI 120 – Computer Methods in Science		CMCE 1110 – Construction Drawings I (2)	
ESC 111 – Elements of Engineering Design		CMCE 1115 – Statics (3)	
ESC 113 – Computer Aided Analysis for	10	CMCE 1211 – Construction Drawings II –	10
Engineering	10	CAD (2)	10
ESC 131 – Engineering Graphics – AutoCAD		CMCE 1114 – Materials and Methods of	
ESC 201 – Engineering Mechanics I		Construction (3)	

<sup>&</sup>lt;sup>1</sup> BMCC students taking the PHY 215 and PHY 225 courses will have the physics requirements satisfied at City Tech though there is a difference in credits.

# E. SENIOR COLLEGE UPPER DIVISION COURSES REMAINING FOR BACCALAUREATE DEGREE<sup>2</sup>

College Option Requirements <sup>3</sup>	Credits	
Any Liberal Arts Course <sup>4</sup>		
Interdisciplinary Course (must be WI)		
Major Requirements		
CMCE 1215 Strength of Materials	2	
CMCE 1222 Surveying I	3	
CMCE 2306 Materials Testing Laboratory (WI)		
CMCE 2315 Elements of Structural Design-Steel		
CMCE 2322 Surveying II	3	
CMCE 2351 Fluid Mechanics (WI)	4	
CMCE 2351L Fluid Mechanics Lab	0	
CMCE 2410 Construction Drawings III	2	
CMCE 2416 Elements of Structural Design-Concrete		
CMCE 2454 Applied Hydraulics-Water Supply		
CMCE 2456 Soil Mechanics (WI)		
CMCE 2457 Construction Techniques in Civil Engineering		
CMCE 2319 Building Service Systems		
CMCE 2412 Construction Estimating		
CMCE 3501 Steel Fabrication Detailing		
CMCE 3520 Construction Management for Civil Engineering Technologists		
CMCE 3602 Heavy Construction Practices		
CMCE 4700 Construction Law		
CMCE 4701 Construction Field Management		
CMCE 4702 Construction and Site Safety Management		
CMCE 4800 Senior Capstone Project (WI)		
CMCE TECH 4400 Series		
CMCE TECH 4400 Series		
CMCE TECH 4400 Series		
Subtotal	64	
Total credits to be taken at City Tech	67	
Total Contributory Credits from BMCC	54	
Total Credits Needed for the Baccalaureate Degree	121	

<sup>&</sup>lt;sup>2</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>&</sup>lt;sup>3</sup> Complete lists of liberal arts and sciences courses and advanced liberal arts and sciences courses, as well as semesterspecific lists of interdisciplinary courses, are available online at the City Tech Pathways website.

<sup>&</sup>lt;sup>4</sup> This course will be satisfied at BMCC.

### E. 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, selected by their chairpersons and/or program directors.
- Procedures for evaluating agreement, i.e., tracking the number of students who transfer under the articulation agreement and their success:
   Each year New York City College of Technology will BMCC with the following information: a) the number of BMCC students 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.
- 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 the New York City College of Technology's website. Transfer advisors at BMCC will promote this agreement with eligible students.

BMCC students who plan to transfer into the Construction Engineering Technology degree program at New York City College of Technology are advised to choose the listed of program requirements indicated in this document in order to satisfy the requirements for the A.S. degree in Science at BMCC and to ensure that the maximum number of credits are transferred to satisfy the Construction Engineering Technology program requirements at New York City College of Technology. Refer to the college website for a list of the general requirements for the A.S. degree.

Effective date: Fall 2019