## **Articulation with Borough of Manhattan Community College (BMCC)**





# THE CITY UNIVERSITY OF NEW YORK ARTICULATION AGREEMENT Between NEW YORK CITY COLLEGE OF TECHNOLOGY And BOROUGH of MANHATTAN COMMUNITY COLLEGE

### A. SENDING AND RECEIVING INSTITUTIONS

Sending College: Borough of Manhattan Community College (BMCC)

Department: Computer Information Systems

Program: Computer Science

Degree: Associate in Science (A.S.)

Receiving College: New York City College of Technology (NYCCT)

Department: Computer Systems Technology

Program: Data Science

Degree: Bachelor of Science (B.S.)

# B. ADMISSION REQUIREMENTS FOR SENIOR COLLEGE PROGRAM

- The AS degree and a minimum GPA of 2.50
- Grade of C or higher in credit-bearing major courses
- Grade of C or higher in freshman composition, its equivalent, or a higher level English course

Students who earn an AS in Computer Science program at BMCC will be accepted into the BS in Data Science under the requirements in effect at the time of admission. To earn a baccalaureate degree, admitted students must earn a minimum of 60 credits of which 34 credits must be taken in residence and 17 in the major..

Students who wish to transfer but do not meet all of the above requirements or are unable to enroll within two years after graduation will receive admission consideration under our standard transfer credit policies.

Total transfer credits granted toward the Bachelor of Science: 60

Total additional credits required at NYCCT to complete Bachelor of Science: 60

Total credits required for the Bachelor of Science in Data Science: 120

# C. REQUIREMENTS OF BMCC AS IN COMPUTER SCIENCE DEGREE TRANSFER CREDITS AWARDED

BMCC graduates who complete the Associate in Sciences degree (A.S.) in Computer Science will receive 60 credits toward the Bachelor of Science (B.S.) degree in Data Science at NYCCT.

BMCC Associate in Science in Computer Science Degree Requirements	
Required Common Core	
English Composition	6
Mathematical & Quantitative Reasoning <sup>1</sup>	3
Life & Physical Sciences <sup>2</sup>	3
Total Required Common Core	12
Flexible Common Core	
Creative Expression <sup>3</sup>	3
World Culture & Global Issues	3
U.S. Experience in its Diversity	3
Individual & Society	3
Scientific World <sup>4</sup>	6
Total Flexible Core	18
Total Common Core	30
Curriculum Requirements	
CSC 111 Introduction to Programming	4
CSC 211 Advanced Programming Techniques	3
CSC 215 Fundamentals of Computer Systems	3
CSC 231 Discrete Structures and Applications to Computer Science	4
CSC 331 Data Structures	3
CSC 350 Software Development	3
MAT 302 Analytic Geometry and Calculus II	4
General Electives <sup>5</sup>	6
Total Curriculum Credits	30
Total Program Credits	60

<sup>&</sup>lt;sup>1</sup>MAT301 is advised to be taken to satisfy the area of Mathematical & Quantitative Reasoning.

City Tech agrees to accept the following Borough of Manhattan Community College courses as the equivalent to City Tech courses offered in the Bachelor of Science in Data Science:

<sup>&</sup>lt;sup>2</sup>PHY215 is advised to be taken to satisfy the area of Life & Physical Sciences.

<sup>&</sup>lt;sup>3</sup>SPE100 is advised to be taken to satisfy the area of Creative Expression.

<sup>&</sup>lt;sup>4</sup>CSC101 is advised to be taken to satisfy the area of Scientific World.

<sup>&</sup>lt;sup>5</sup>Some general electives credits can be satisfied by STEM variants taken in the Common Core.

City Tech Courses: B.S. in Data Science	Borough of Manhattan Course: Computer Science
CST1100	CSC101
CST1101	CSC215
CST1201	CSC111
CST3513	CSC211
CST3650	CSC331
MAT1575	MAT302
MAT2440	CSC231

# D. SENIOR COLLEGEUPPER DIVISION COURSE REMAINING FOR BACCALAUREATE DEGREE

Courses students will be required to take at NYCCT after completing AS in Computer Science to earn the BS in Data Science

Deteries to sum the	BS in Butti Science		
COLLEGE OPTION REQUIREMENTS			
Public Speaking	COM 1330 or higher. If public speaking already taken, then	3	
	as advanced liberal arts course		
Interdisciplinary	Any approved interdisciplinary (ID) course	3	
Course			
Total Common Core & College Option Requirements		6	

DISCIPLINE REQUIREMENTS				
MAT2575	Probability and Statistics I	4		
MAT2580	Introduction to Linear Algebra	3		
CST1204	Database Fundamentals	3		
CST2302	Data Management I	3		
CST2309	Web Programming I	3		
CST2402	Introduction to Data Science	3		
CST2410	Introduction to Security	3		
CST3502	Data Management II	3		
CST3512	Data Mining	3		
CST3602	Data Visualization	3		
CST4702	Machine Learning	3		
CST4802	Information Retrieval	3		
CST4812	Natural Language Processing	3		
CST4900	Internship	3		
	Sub Total	43		
Two Electives from the following				
BUS2339	Financial Management	3		
BUS2341	Financial Forecasting	3		
MED2400	Medical Informatics Fundamentals	3		
MED4229	Healthcare Databases	3		
BMET4741	Fundamental Healthcare Data Analytics	3		
BMET4842	Advanced Healthcare Data Analytics	3		
ECON1101	Macroeconomics	3		
ECON2301	Money and Banking	3		

	Total	60
	credits and 120 total credits	
	Electives to complete a minimum of 60 liberal arts	4-5
	Sub Total	6/7
PHYS3600	Machine Learning for Physics Astronomy	3
CET4973	Introduction to Artificial Intelligence	3
CET4925	Internet of Things	3
MAT4672	Computational Statistics with Applications	4
MAT3672	Probability and Statistics II	3

# Writing Intensive Requirement

Students at New York City College of Technology must complete two courses designated WI for the baccalaureate level, one from liberal arts and one from the major.

Total degree credits to be taken at NYCCT 60 Total Credits for Degree: 120

# E. ARTICULATION AGREEMENT FOLLOW-UP PROCEDURE

In order to facilitate the efficient transition between our institutions, interested BMCC students are invited to utilize the pre-transfer advisement services of City Tech. Such services may be performed at NYCCT, or, by pre-arrangement, on-site at BMCC. Successful graduates are also assured of availability to all ancillary services at NYCCT.

- 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 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 New York City College of Technology (City Tech) will provide Borough of Manhattan Community College (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 and the number of BMCC students who enrolled and the aggregate GPA of those enrolled students at City Tech.

- 3. Sending and receiving college procedures for publicizing the agreement: this agreement will be publicized and posted, transfer advisors will publicize,
- 4. Both parties will notify the other of any changes.

Effective: fall 2020