PATHWAYS
Computer Information Systems (A.A.S. Degree)
Computer Programming Option
FALL 2018-SPRING 2019

REMEDIAL SEQUENCE (if required)

☐ ESL 1 (8) ⏩	☐ ESL 2 (6) ⏩	☐ ESL 3 (6) ⏩	☐ ENG 9 (4)
☐ ENG 1 (4) ⏩	☐ ENG 2 (4)		
☐ RDL 1 (4) ⏩	☐ RDL 2 (6)		
☐ MTH 1 (4) ⏩	☐ MTH 5 (6)		
☐ CHM 2 (4)			

GRADUATION REQUIREMENTS

☐ CAT-R	☐ CAT-W	☐ CAT-M	☐ GPA ≥ 2.0
☐ Writing Intensive 1	☐ Writing Intensive 2		

REQUIRED FRESHMAN SEMINAR

☐ FYS 11

[1] Students planning to transfer to a four-year college should take MTH 30 or 31. The prerequisite for MTH 30 is MTH 6.

[2] Students may select either a 4-credit or a 3-credit science course. Students selecting a 3-credit course must also complete an additional 1-credit lab course to fulfill graduation requirements.

[3] In an effort to provide students with a well-rounded liberal learning experience, students are encouraged to fulfill this requirement by selecting courses from Flexible Core Areas B, C or E as these areas are not already required by this program.

[4] Students who have completed MTH 06 (or three years high school mathematics) and intend to transfer to a four-year college may take BUS 41 instead of BUS 111.

[5] CWE 31 is a two (2) credit course. A student should enroll in CWE one year before graduating or when starting the third semester. See the CWE advisor in Loew Hall, Career Services, during the second semester. Students who are employed full-time are not required to complete CWE. A waiver must be obtained from the Department Chairperson by submitting documentation of current full-time employment. After a written waiver of CWE is obtained, the student must substitute the required CWE credits with any course(s) offered by the Business and Information Systems Department. College Work-Study assignments within CUNY may not be used as substitutes for the CWE internship.

[6] Students must take FYS 11 prior to earning 24 degree or equated credits. Students who have earned 24 or more degree or equated credits are permitted to use the one credit as a free elective. It is highly recommended that students take FYS 11 in their first or second semester. This requirement will be waived for students who have earned 24 or more degree or equated credits at BCC or another college and transfer into this program.

[7] Students transferring into the program with 24 or more degree or equated credits will be required to complete only 60 credits to graduate.

REQUIRED COMMON CORE

☐ **A**	**English Composition** ENG 110 **OR** ENG 111; **AND** ENG 112 **OR** ENG 113 **OR** ENG 114 **OR** ENG 115 **OR** ENG 116	6
☐ **B**	**Mathematical and Quantitative Reasoning**[1] MTH 21 Survey of Mathematics I **OR** MTH 23 Probability and Statistics	3
☐ **C**	**Life and Physical Sciences**[2] AST 111, BIO 11, CHM 111, CHM 17, ENV 11 ESE 11, ESE 12, ESE 13, PHY 110 **OR** PHY 11	3-4
	Subtotal:	**12-13**

FLEXIBLE COMMON CORE (Course list at: http://www.bcc.cuny.edu/pathways/?p=Flexible-Common-Core)

☐ **A World Cultures and Global Issues** HIS 10 History of the Modern World **OR** HIS 11 Introduction to the Modern World	3
☐ **B -** ECO 12 Macroeconomics **OR** ☐ **D -** ECO 11 Microeconomics	3
☐ **Select an additional course from Flexible Core A-E**[3]	3
Subtotal:	**9**

MAJOR REQUIREMENTS

☐ ACC 111	Principles of Accounting I	4
☐ BIS 13	Introduction to Internet and Web Development	3
☐ BUS 10	Introduction to Business	3
☐ BUS 111	Applications of Mathematics for Business[4]	3
☐ COMM 12	Voice and Diction: Business and Professional Speech	2
☐ CWE 31	Cooperative Work Experience[5]	2
☐ DAT 30	Introduction to Computer Fundamentals and Programming	3
☐ DAT 33	Microcomputer Applications	2
☐ DAT 35	BASIC Language Programming	3
☐ FYS 11	First Year Seminar[6]	0-1
☐ KEY 10	Keyboarding for Computers	1
☐ LAB	Lab science credit[2]	0-1
Computer Programming Option Requirements:		
☐ DAT 38	Database Management Applications	3
☐ DAT 47	JAVA Programming	3
☐ DAT 48	Advanced JAVA Programming	3
☐ DAT 49	UNIX Fundamentals	3
	Subtotal:	**39-40**
	TOTAL:	**60-61**[7]

BRONX COMMUNITY COLLEGE