Degree Map

A.S. in Computer Science and Information Security leading to a B.S. in Computer Science and Information Security at the John Jay College of Criminal Justice (Dual/Joint Degree Program) – Catalog Year 2025-26

The number of credits you take each year will determine when you graduate. To graduate on time, you are strongly encouraged to enroll in at least 30 credits toward your degree during the calendar year, including fall and spring semesters and winter and summer sessions This degree map is designed for students who place into MA-440. Additional degree maps are available for students who place into other levels of mathematics. Please see the degree website or your advisor for more information.

Courses in Bold Text are prerequisites for later courses or only offered in the Fall or Spring semester and should be taken where indicated in the sequence.

Fall Semester #1 – Queensborough Community College

Courses	Credits	Prerequisites and Corequisites[1]
MA-440 Pre-Calculus Mathematics[2] (Required Core 1B - Mathematical & Quantitative Reasoning)	4	Prerequisite: MA-119 and MA-121 (C or better in both) or MA-114 (C or better) or placement
ET-574 Programming and Applications with Python (Required for major)	3	Corequisite: ET-704
ET-704 Networking Fundamentals I (Required for major)	4	None
One course from Required Core 1C: Life & Physical Sciences	3-4	Check individual courses for prerequisites and corequisites
Science Laboratory course[3]	0-1	Corequisite: 3-credit Science course in Required Core 1C
Total credits for the term	**15**	

Spring Semester #1 – Queensborough Community College

Courses	Credits	Prerequisites and Corequisites[1]
ENGL-101 English Composition I (Required Core 1A: English Composition)	3	Prerequisite: Complete developmental requirements in English
MA-471 Introduction to Discrete Mathematics (Required for major)	3	Prerequisite: MA-440 (C or better)
ET-506 LINUX Operating System (Required for major)	3	Co-requisite: ET-704 or permission
ET-575 Introduction to C++ Programming Design and Implementation (Required for major)	3	Corequisite: MA-114, MA-119, or MA-440
One course from Flexible Core 2A, 2B, 2C, 2D, or 2E[4]	3	Check individual courses for prerequisites and corequisites
Total credits for the term	**15**	

Fall Semester #2 – Queensborough Community College

Courses	Credits	Prerequisites and Corequisites[1]
ENGL-102 English Composition II (Required Core 1A: English Composition)	3	Prerequisite: ENGL-101 or placement
MA-441 Analytic Geometry and Calculus I[2] (Flexible Core 2E: Scientific World)	4	Prerequisite: MA-440 (C or better)
ET-580 Object Oriented Programming (Required for major)	3	Prerequisite: ET-575 (C or better)
ET-725 Computer Network Security (Required for major)	3	ET-704 or permission
One course from Flexible Core 2A, 2B, 2C, 2D, or 2E[4]	3	Check individual courses for prerequisites and corequisites
Total credits for the term	**16**	

Spring Semester #2 – Queensborough Community College

Courses	Credits	Prerequisites and Corequisites[1]
MA-442 Analytic Geometry and Calculus II (Required for major)	4	Prerequisite: MA-441 (C or better)
ET-585 Computer Architecture (Required for major)	3	Prerequisite: ET-575
One course from Flexible Core 2A, 2B, 2C, 2D, or 2E[4]	3	Check individual courses for prerequisites and corequisites
One course from Flexible Core 2A, 2B, 2C, 2D, or 2E[4]	3	Check individual courses for prerequisites and corequisites
One course from Flexible Core 2A, 2B, 2C, 2D, or 2E[4] Recommended: CRIM-101 Introduction to the American Criminal Justice System (Area 2D)	3	Prerequisite for CRIM-101: Completion of developmental requirements in English
Total credits for the term	**16**	
Total credits required for the degree	**62**	

Notes:

1. Prerequisites for a course must be passed before taking the course. Corequisites must be passed before taking the course or taken in the same term as the course.
2. Students are required to take specific courses in some areas of the Common Core that fulfill both general education and major requirements. If students do not take the required courses in the Common Core, they will have to take additional credits to complete their degree requirements.
3. This course is not required for students who take a 4-credit STEM variant course in Required Core 1C.
4. Students must complete one course from each of the Flexible Core categories (2A, 2B, 2C, 2D, and 2E) and one additional course from any one of the categories. Students in this degree program are strongly recommended to take CRIM-101 to satisfy area 2D.

All students must complete two (2) WI designated classes to fulfill degree requirements

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The following courses must be completed after transfer to John Jay to earn the B.S. in Computer Science and Information Security:

Fall Semester #3 – John Jay College

Courses	Credits	Prerequisites and Corequisites
MAT 301 Probability & Mathematical Statistics I	3	Prerequisites: MAT 241 and ENG 201 (both completed at QCC)
CSCI 373 Advanced Data Structures	3	Prerequisites: CSCI 272 and ENG 101 (both completed at QCC)
CSCI 375 Operating Systems	3	Prerequisites: CSCI 272 and ENG 201 (both completed at QCC)
One College Option General Education Course from the "Struggle for Justice & Equality in the U.S." category or the "Justice in Global Perspective" category	3	Check individual courses for prerequisites and corequisites
Free Elective or Minor Course	3	Check individual courses for prerequisites and corequisites
Total credits for the term	**15**	

Spring Semester #3 – John Jay College

Courses	Credits	Prerequisites and Corequisites
CSCI 374 Programming Languages	3	Prerequisites: CSCI 272 and ENG 201 (both completed at QCC)
CSCI 377 Computer Algorithms	3	Prerequisites: CSCI 272 and ENG 201 (both completed at QCC)
MAT Elective Course (see list below)	3	Check individual courses for prerequisites and corequisites
One College Option General Education Course from the "Learning from the Past" category	3	Check individual courses for prerequisites and corequisites
Free Elective or Minor Course	3	Check individual courses for prerequisites and corequisites
Total credits for the term	**15**	

Fall Semester #4 – John Jay College

Courses	Credits	Prerequisites and Corequisites
CSCI 400 Capstone Experience in Digital Forensics/Cybersecurity I	3	Prerequisites: ENG 201 (completed at QCC) and CSCI 373
CSCI 360 Cryptography and Cryptanalysis	3	Prerequisites: ENG 201, MAT 204, and CSCI 272 (all completed at QCC)
PHI 216 Ethics and Information Technology	3	Prerequisites: ENG 101 (completed at QCC)
Free Elective or Minor Course	3	Check individual courses for prerequisites and corequisites
Free Elective or Minor Course	3	Check individual courses for prerequisites and corequisites
Total credits for the term	**15**	

Spring Semester #4 – John Jay College

Courses	Credits	Prerequisites and Corequisites
CSCI 401 Capstone Experience in Digital Forensics/Cybersecurity II	3	Prerequisites: ENG 201 (completed at QCC) and CSCI 400
CSCI 411 Computer Security and Forensics	3	Prerequisites: CSCI 360 and CSCI 375
CSCI Elective Course (see list below)	3	Check individual courses for prerequisites and corequisites
Free Elective or Minor Course	3	Check individual courses for prerequisites and corequisites
Free Elective or Minor Course	3	Check individual courses for prerequisites and corequisites
Total credits for the term	**15**	
Total credits required for the B.S. degree	**60**	

Major Elective Courses – John Jay College

Math Electives (choose one)	Credits	Computer Science Electives (choose one)	Credits
MAT 242 Calculus II	3	CSCI 275 Linux System Administration and Security	3
MAT 243 Calculus III	3	CSCI 362 Databases and Data Mining	3
MAT 244 Calculus IV	3	CSCI 376 Artificial Intelligence	3
MAT 310 Linear Algebra	3	CSCI 380 Selected Topics in Computer Science	3
MAT 351 Introduction to Ordinary Differential Equations	3	CSCI 404 Internship in Management Information Systems	3
MAT 371 Numerical Analysis	3		
MAT 380 Selected Topics in Mathematics	3		