MATH AND COMPUTER & INFORMATION SCIENCES MAJOR

Requirements

A minimum grade of C- is required for each course counting toward this joint major. An overall average of 2.0 must be separately maintained in mathematics and computer and information sciences courses.

Required courses and sufficient electives to fulfill the major are available on both campuses. Course descriptions are available from each department.

Majors in this program are eligible for honors at graduation in mathematics and computer & information sciences.

The major requires 14 total courses: 10 common required courses, two courses in one concentration, and two electives. *Students must declare a concentration in mathematics or computer and information sciences.* The 10 common required courses are identified below.

Course	Title	Credits
Required Courses		
CISC 1600 & CISC 1610	Computer Science I and Computer Science I Lab [1]	4
CISC 2000 & CISC 2010	Computer Science II and Computer Science II Lab	4
CISC 2200	Data Structures	4
CISC 4080	Computer Algorithms	4
CISC 4090	Theory of Computation	4
MATH 1207	Calculus II	4
MATH 2004	Multivariable Calculus I	4
MATH 2001	Discrete Mathematics	4
MATH 2006	Linear Algebra I	4
MATH 4006	Numerical Analysis	4
Electives		
Select two electives in mathematics (four credit courses numbered above 2000) or computer and information sciences (numbered above 2000, possibly including 5000-level graduate courses) [2]		
Concentration		
Select one of the following:		
Mathematics Concentration		
Computer and Information Sciences Concentration		

[1] Students who take CISC 1600 during Fordham's Summer Session do not take CISC 1610, as the summer lecture and lab are offered in a combined format.

[2] At least one elective must be from mathematics if the computer and information sciences concentration is chosen and at least one elective must be in computer and information sciences if the mathematics concentration is chosen. The following courses may not count toward this requirement: CISC 4001 Computers and Robots in Film, CISC 4650 Cyberspace: Issues and Ethics, and CISC 4660 Minds, Machines, and Society.

Concentrations

Each student must also take two courses from one of the following two concentrations. Courses from the concentration not chosen may be used as electives.

Mathematics Concentration

Course	Title	Credits
Select two of the following:		8
MATH 3006	Probability	
MATH 3007	Statistics	
MATH 3002	Differential Equations	
MATH 4022	Partial Differential Equations	

Computer and Information Sciences Concentration

Course	Title	Credits
Select two of the following:		8
CISC 3500	Database Systems	
CISC 3593	Computer Organization	
CISC 3595	Operating Systems	
CISC 4597	Artificial Intelligence	
CISC 4615	Data Communications and Networks	
CISC 4631	Data Mining	

Availability

The major in math and computer & information sciences is available at Fordham College at Rose Hill and Fordham College at Lincoln Center. Students in Fordham's School of Professional and Continuing Studies may major in math and computer & information sciences only if they receive the approval of their advising dean and/or department, and their schedules are sufficiently flexible to permit them to take day courses at the Rose Hill or Lincoln Center campuses.

Fordham College at Rose Hill students: *The requirements above are in addition to those of the* Core Curriculum.

Fordham College at Lincoln Center students: *The requirements above are in addition to those of the* Core Curriculum.

Professional and Continuing Studies students: *The requirements above are in addition to those of the* PCS Core Curriculum *and any additional electives that may be required to earn a minimum of 124 credits.*