COMPUTER AND INFORMATION SCIENCES

Computer Science

The curriculum in computer science is oriented toward computing methods and systems. It emphasizes systems analysis, software design and programming, analytic reasoning, computer architecture, and the theory of computation. Students will learn the process and algorithms to analyze and solve complex problems and also use the computer and the Internet as a problem-solving tool. Students graduating from the program will be prepared for careers in computer science, information technology, system design, telecommunications, and network applications, both in the public and private sectors. Students will also be prepared for further graduate study in computer science or other related area.

Students wishing to major in computer science should take CISC 1600 Computer Science I and CISC 1400 Discrete Structures in the first semester of their first year year (or as soon as possible) and CISC 2000 Computer Science II in the second semester of their first year.

No computer or information science course in which a student receives a grade below C- can be credited toward a major or minor in the department.

Accelerated Master's Program

Please read the Graduate School of Arts and Sciences Accelerated Master's Programs section of this bulletin for more information. Interested majors should speak with the associate chair of graduate studies in the fall of junior year. Students do not need to include GRE scores unless they are planning to apply for financial aid after finishing the bachelor's degree.

The minimum GPA to be eligible to apply is 3.2 or higher. This policy applies to FCRH, FCLC, and PCS. Students opting for early admission must take two graduate courses in their senior year, which count toward both their B.A. (or B.S.) and M.S. degree. Graduate courses taken while still at the college must be approved by the associate chair for graduate studies of the department. Applications are made online through the Graduate School of Arts and Sciences website.

Program Activities

Courses For Nonmajors

1. Students wishing a general familiarity with computers, or computer and information sciences and technology, but who do not wish to major in computer science, are advised to take any of the following courses, which do not require any CIS prerequisities, as soon as possible:

Course	Title	Credits
CISC 1100	Structures of Computer Science	3 to 4
or CISC 1400	Discrete Structures	
CISC 1600 & CISC 1610	Computer Science I and Computer Science I Lab	4
CISC 1800	Introduction to Computer Programming	3
CISC 2350	Information and Web Programming	4
CISC 2500	Information and Data Management	4
CISC 2530	Digital Video and Multimedia	4
CISC 2540	Introduction to Video Game Design	4
CISC 2850	Computer and Data Analysis	4
CISC 4001	Computers and Robots in Film	4
CISC 4006	Brains and Behavior in Beasts and Bots	4

2. Students who wish to gain a basic foundation in computer programming without pursuing a major or minor in Computer Science should take CISC 1800 Introduction to Computer Programming.
3. Students who specifically wish to gain familiarity with web page construction and digital media and graphics should take CISC 2350 Information and Web Programming, CISC 2530 Digital Video and Multimedia, or CISC 2540 Introduction to Video Game Design.
4. Students wishing to have some knowledge on the applications of computer and information sciences and their interface with biomedicine and health can take CISC 4020 Bioinformatics.
5. Students majoring in science, mathematics, and social science, who wish to pursue their further graduate studies in a field or subject closely related to (or utilizing) quantitative, qualitative, and algorithmic reasoning should take CISC 4631 Data Mining in addition to those courses listed in (1) above.
6. Students can take a combination of courses (listed in (1), (2), (3) and (4) above) to fulfill a minor in computer science or information technology and systems (see the required minor courses in Minor section) or to prepare intellectual skills necessary in their major study.

3-2 Cooperative Program in Engineering

This joint five-year program with Columbia University leads to a B.A. degree from Fordham University and a B.S. degree in engineering from Columbia University. A description of the program is given under the Cooperative Program in Engineering section of this bulletin. The department provides a specialized set of CS major requirements for 3-2 engineering students. Interested students should consult the computer and information sciences department as early as possible.

For more information

Visit the Computer and Information Sciences department web page.