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 processes 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 freshman year (or as soon as possible) and CISC 2000 Computer Science II in the second semester of their freshman year.

Information Science

The curriculum in information science emphasizes information acquisition, information analysis, and information systems, as well as information and network technology.

It is concerned with the design of and methodologies for storing, retrieving, processing, and transmitting data and information. Students graduating from the program will be prepared for a variety of careers, including those in information systems, computer applications, web-based system design, and Internet and communication technology as found in government, business, and society. Students will also be prepared for further graduate study in information science, information systems, information networking, and other related areas.

Students wishing to major in information science should take CISC 1100 Structures of Computer Science and CISC 1600 Computer Science I in the first semester of their freshman year or as soon as possible.

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.

Early Admission to Master’s Program

Please read the Early Admission to Graduate School of Arts and Sciences Master’s Programs section of this bulletin for more information. Interested majors should speak with the associate chair of graduate study in information science and their interface with biomedicine and health can take CISC 4020 Bioinformatics.

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 science department as early as possible.

For more information

Visit the Computer and Information Sciences department web page.

Contribution to the Core

The Department of Computer and Information Sciences offers CISC 1100 Structures of Computer Science, CISC 1400 Discrete Structures, and CISC 1600 Computer Science I (CS1), each fulfilling the mathematical and computational reasoning core requirement. We encourage science and social science majors, and those interested in receiving a more
in depth understanding of algorithmic and quantitative reasoning, to take CISC 1400 Discrete Structures instead of CISC 1100 Structures of Computer Science.

The department also offers CISC 2540 Introduction to Video Game Design, which satisfies the EP3 core requirement, and CISC 4001 Computers and Robots in Film and CISC 4006 Brains and Behavior in Beasts and Bots, which satisfy the ICC core requirement.

The department also offers CISC 4650 Cyberspace: Issues and Ethics and CISC 4660 Minds, Machines, and Society, which fulfill the Values Seminar/ EP4 core requirement.

**Programs**

**Majors**
- Computer Science Major
- Information Science Major
- Mathematics and Computer & Information Sciences Major

**Minors**
- Bioinformatics Minor
- Computer Science Minor
- Cybersecurity Minor
- Information Science Minor

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