Graduate School of Arts and Sciences website.

studies of the department. Applications are made online through the
both their B.A. (or B.S.) and M.S. degree. Graduate courses taken while
must take two graduate courses in their senior year, which count toward
applies to FCRH, FCLC, and PCS. Students opting for early admission
the bachelor's degree.

Interested majors should speak with the associate chair of graduate

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.

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

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 or information science, are advised to take any of
the following courses, which do not require any CIS prerequisites, as
soon as possible:

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

2. 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.

3. 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.

4. 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 2850 Computer and Data
Analysis or CISC 4631 Data Mining in addition to those courses listed
in (1) above.

5. Students can take combination of courses (listed in (1), (2), (3) and
(4) above) to fulfill a minor in computer science, information 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.

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