Computer Science @ NYU

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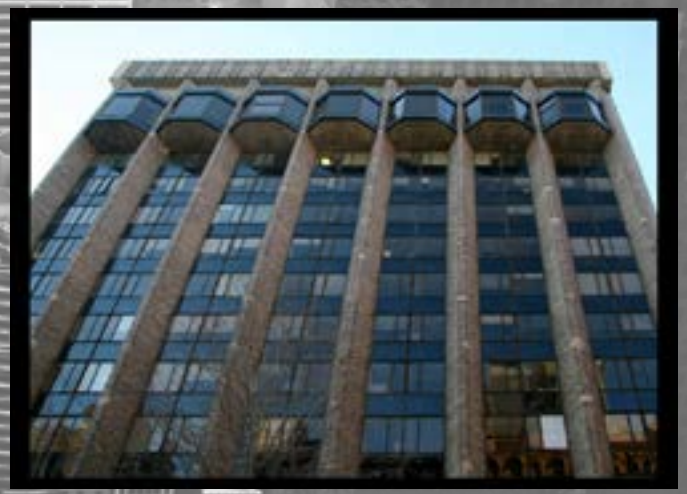

NEW YORK UNIVERSITY

NYU | COURANT INSTITUTE OF MATHEMATICAL SCIENCES

Academic Programs

Majors

- Major in Computer Science
- Joint Major in Computer Science and Mathematics
- Joint Major in Economics and Computer Science

Minors

- Minor in Computer Science
- Minor in Web Programming and Applications
- Joint Minor in Computer Science and Mathematics

Honors

- Major in Computer Science with HONORS
- Joint Major in Computer Science and Mathematics with HONORS
- Joint Major in Economics and Computer Science with HONORS

Special Programs

- Dual Degree Program in Engineering
- Accelerated Bachelor's - Master's Program

Curriculum

Non-major Courses

- Computers in Society
- Introduction to Computer Programming
- Introduction to Web Design & Computer Principles
- Database Design and Web Implementation
- Web Development and Programming
- Topics of General Computing Interest

Major Courses

- Introduction to Computer Science
- Data Structures
- Computer Systems Organization
- Operating Systems
- Basic Algorithms
- Numerical Computing
- Computer Architecture
- Theory of Computation
- UNIX Tools
- Object-Oriented Programming
- Artificial Intelligence
- Introduction to Cryptography
- Special Topics in Computer Science

Programming Language

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Python

Students with little or no experience in programming must take Introduction to Computer Programming (CSCI-UA.0002), a basic introduction to programming using Python, before taking CSCI-UA.0101.

Java

The Java programming language is used for the courses Introduction to Computer Science I and II. Well prepared freshmen who want to major in Computer Science and who have some programming experience, either from high school or the workplace, are advised to take CSCI-UA.0101 and CSCI-UA.0102 in their freshman year. Although Java is taught from the beginning, students are expected to have some basic programming experience before entering CSCI-UA.0101.

C or C++

In Computer Systems Organization I (CSCI-UA.0201), students use both assembly language and the C programming language. In Computer Systems Organization II (CSCI-UA.0202), students typically use Java, C or C++.

Other

Upper level electives use a variety of languages, most commonly Java or C++.

Prospective Career

Creative Positions

- Industrial Designer
- Modeler/Artist/Designer
- Producer
- User Interface Developer/Designer
- Web Developer
- Webmaster

Engineering Positions

- Quality Assurance Engineer
- Software Engineer
- Application Programmer
- Hardware or Circuit Engineer
- Technical Writer
- Database Administrator

Support Positions

- Technical Support
- Training Consultant
- Management Information Systems
- System Administrator
- Information Security Specialist

Sales, Public Relations, and Marketing Positions

- Public Relations Manager
- Sales Associate
- Sales Manager
- Marketing Communication
- Direct Marketing
- Product Manager