About Us

Prospective graduate students, contact the Graduate Advisor at askCSCIgrad@niu.edu
Prospective undergraduate students, contact the Undergraduate Advisor at askCSCIundergrad@niu.edu

Computer Science as a formal discipline was initiated at Northern Illinois University in 1971. At that time, leadership was based in the Department of Mathematical Sciences with divisional status given to computer science in 1974. Departmental status for computer science was approved by the Illinois Board of Higher Education in February, 1982. Presently, the Department of Computer Science resides in the College of Liberal Arts and Sciences and offers three undergraduate programs leading to the degree Bachelor of Science as well as a minor and a master's program.

NIU's Department of Computer Science has provided students access to the breadth and depth of computer science for over thirty years. For students interested in business careers, our programs keep pace with an ever-changing industry. For students interested in careers in high-tech industries or research, we provide introductory and advanced courses in a variety of core and specialty areas. We also provide exciting courses for non-majors desiring a basic introduction to computing and for students interested in interdisciplinary careers. Such students might choose to minor in computer science.

Graduates find employment in business, high-tech industries across the United States, and research organizations. Numerous companies recruit Northern Illinois University computer science graduates for both internships and permanent positions. The Career Services office on campus helps students in their employment searches by holding internship fairs and job fairs, as well as by hosting a web site with job postings. Students interested in graduate education and research careers are encouraged to consult with professors in their area of interest.

Psychology-Computer Science Building, Room 460
Northern Illinois University
DeKalb, IL 60115 USA

Phone: 815.753.0378
Office Hours: Monday-Friday, 8:00-Noon & 1:00-4:30pm

The Department supports several extracurricular activities that complement our academic programs. We sponsor a dormitory floor to provide our computer science students with social as well as academic interaction. The Student Chapter of the Association for Computing Machinery (ACM) hosts a series of events including “meet-the-firm” opportunities, visitations to industrial computing facilities, and speakers from national high-tech companies. The chapter also holds resume writing clinics and programs that focus on internship and interviewing opportunities. The Department brings one or more nationally-known researchers to campus each semester to keep students up to date with the latest advancements in computer science. Each semester, the Department publishes a newsletter designed to keep students informed about developments in computer science as well as departmental updates.

B.S. in Computer Science

The Department offers three emphases at the undergraduate level:

- **Software Development:** Concentrates on only computer science classes, without additional mathematics or business courses. Students are well-prepared for software development careers in virtually any industry.
- **Enterprise Software:** Requires three courses in accountancy, finance, management, or marketing. An Enterprise Software major typically programs business applications and is well-positioned to move into management later in his or her career.
- **Computational Software:** Combines the study of computer science with a set of advanced courses in applied mathematics and statistics. A Computational Software major generally goes on to graduate school or takes a position in mathematical programming, such as in research or statistical programming for an insurance company. The Mathematics courses for the Computational Software emphasis are sufficient to complete a minor in Mathematics and many Computational Emphasis majors add additional Mathematics courses to complete a major in Mathematics.

All three emphases require the completion of 12 courses in computer science, including various languages (e.g., C++, Java, IBM Assembler, PHP, JavaScript, C#, and Perl), software engineering, security, databases, development environments such as.NET, and operating systems such as UNIX/Linux, Windows, and IBM’s z/O).

The distribution of students completing the three emphases has been remarkably consistent throughout the department’s history. Approximately 45% of computer science majors complete the Software Development Emphasis, another 45% complete the Enterprise Software Emphasis; and 10% complete the Computational Software Emphasis.

Undergraduate Minor in Computer Science

The minor in Computer Science can be used to enhance job readiness, to prepare a student for the many interdisciplinary fields of study requiring a background in computing, or simply to extend the breadth of a student's education. It is a particularly useful complement for students planning careers in bioinformatics, mathematics, computer art or music, linguistics, psychology, security, or web design. Admission to the minor is granted competitively to students who, by successfully completing at least one required computer science class, give evidence that they can successfully complete the program of five required courses in computer science.

M.S. in Computer Science

At the graduate level, the Department of Computer Science offers a Master of Science degree consisting of at least 10 graduate level courses and a comprehensive examination. For qualifying students, a thesis option is available. Recent revisions to the curriculum have resulted in fewer required courses than in the past, a larger choice of electives, and a number of new courses.

A unique feature of our M.S. program is the (optional) emphasis on enterprise computing, which grows out of the department's long history of specialization in IBM mainframe computing, and is now expanding to include a broader range of topics. These topics are concerned with computing in the enterprise environment and include web services, testing, scalability, distributed processing, and internationalization, among others.

In addition to the M.S. degree program, the department is actively developing special programs, one in computer and network Security and the other in bioinformatics (in collaboration with Argonne National Laboratory, the Biology Department at NIU, and other institutions of higher learning in the Northern Illinois area). The bioinformatics program focuses on, but is not limited to, techniques and theory of genome annotation.

The department's curriculum represents an effective balance between theory and practice. Many, if not most, courses involve substantial programming or design assignments. At the same time, the theoretical and intellectual content necessary for a deep understanding of concepts and a basis for future acquisition of knowledge and skills are not neglected. The nature of the field demands that students be prepared for self-learning once they have graduated and are in the workplace or conducting research. Traditionally, the Department's strength has been in preparing students for careers in software development in business and industry; however, our new offerings in security, bioinformatics, and the thesis option reflect an increased commitment to preparing interested students in research and further academic work.

Activities in the Department

- The Department supports a very active Student Chapter of the Association for Computing Machinery (ACM) , which sponsors game nights, tutoring, outings and tours, and guest speakers.
- The STEM (Science, Technology, Engineering, and Mathematics) Floor in the residence halls includes Computer Science students, thereby offering a community of students with common interests and coursework.
- Employers testify that our student interns and employees are exceedingly well prepared for the workplace.
- The Graduate Colloquium in partnership with the Graduate School brings nationally recognized colloquium speakers to campus each semester.