

Transfer Guide Leading to a Bachelor's Degree in Computer Science

All degree requirements are subject to the provisions and notices in the [NIU Undergraduate Catalog](#). Information is valid through **November 2015**.

Courses Needed Prior to Transfer (if student is transferring to NIU with general education requirements complete):

- **MATH 110:** College Algebra (or a higher-level math course)

Courses Highly Recommended Prior to Transfer:

- **CSCI 240:** Computer Programming in C++
- **CSCI 241:** Intermediate Programming
- **MATH 206:** Discrete Mathematics
- **MATH 211:** Business Calculus (if not pursuing the Computational Emphasis)
 - **OR**
- **MATH 229 & 230:** Calculus I & II (applicable to all emphases)
- **MATH 232:** Calculus III (if pursuing the Computational Emphasis)
- **MATH 240:** Linear Algebra (if pursuing the Computational Emphasis)
 - **NOTE:** Check with NIU's Department of Mathematics to confirm that your Community College has a Linear Algebra course that will transfer here.

Courses to be Completed at NIU

Computer Science students are expected to have completed (or transferred in) a total of twelve (12) Computer Science courses. The Software Development emphasis includes three (3) Computer Science electives, while the Enterprise Software and Computational Software emphases include two (2) Computer Science electives.

Extra-departmental requirements include 3-4 Math courses for the Software Development and Enterprise Software emphases; 3-4 Business classes for the Enterprise Software emphasis; PHYS 253, STAT 350 and 6 Math courses for Computational Emphasis students.

The following lists the required Computer Science classes, while also representing the prerequisite hierarchy that must be followed:

- **CSCI 240:** Computer Programming in C++
 - **CSCI 241:** Intermediate Programming
 - **CSCI 340:** Data Structures and Algorithm Analysis
 - **CSCI 467:** Introduction to Software Engineering
 - **(Elective) CSCI 470:** Programming in Java
 - **(Elective) CSCI 473:** .Net Programming
 - **(Elective) CSCI 475:** Advanced Web Development
 - **CSCI 480:** Principles of Operating Systems
 - **CSCI 466:** Databases
 - **CSCI 330:** Unix Systems and Network Programming
 - **CSCI 360:** Computer Programming in Assembler Language
 - **CSCI 463:** Computer Architecture and Systems Organization
 - **CSCI 480:** Principles of Operating Systems
 - **(Enterprise Emphasis): CSCI 465:** Enterprise Application Environments
 - **(Computational Emphasis): CSCI 462:** Foundations of Computer Science

About the Department

The Department of Computer Science at NIU provides undergraduate students with 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.

Transfer students are encouraged to complete an A.A. or A.S. degree from their Community College, as well as including all possible preparatory courses for the Computer Science major requirements here at NIU. This list is described below in the “Courses Highly Recommended Prior to Transfer” below, which is the best way to ensure that a student can feasibly complete the “2+2 Plan”.

Student Organizations:

The Student Chapter of the Association for Computing Machinery (ACM) serves as a focal point for information regarding the advantages of being associated with this organization of computer professionals. As in the past, the ACM will sponsor speakers from industry to talk on various computer-related topics.

Speakers from companies such as International Truck and Engine Corporation, IBM San Jose, Deere and Co., and Caterpillar, Inc. not only have described their particular "real world" of IT, but also have emphasized the importance of knowledge gained from NIU course material in their actual computer operations.

Career Information:

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.

For More Information

[Department of Computer Science at NIU](#)

Department of Computer Science
Northern Illinois University
1425 W. Lincoln Hwy.
DeKalb, IL., 60115

Phone: (815) 753-0378

Chair of the Department: Dr. Nicholas Karonis, karonis@niu.edu

Director of Graduate Studies: Dr. Robert Zerwekh, rzerwekh@niu.edu

Assistant to the Chair & Undergraduate Advisor: Daniel Rogness, drogness1@niu.edu