# Computer Science

## School of Computer Sciences, College of Business and Technology



## Program of Study

Like all of Western Illinois University's programs, studies in computer science are based on the broad educational foundation built during freshman and sophomore years. General education courses account for approximately one-third of the credit hours required for the degree and include courses in writing, speaking, the humanities, the social sciences, the natural sciences, mathematics and health sciences.

Students will find the computer science program rewarding and challenging. The goals are to give students the fundamental knowledge of the field, allow students to continue updating their knowledge as the field progresses and give students the confidence to attack problems and the competence to solve them. For students with a special interest in security, WIU offers the computer science program with a cyber security emphasis. For students with a special interest in the business world, WIU offers the computer science program with a business emphasis.

WIU's computer science program will consist of the following core courses: Computer Science Principles (with the language of JAVA), Software Applications, Computer Organization, Data Structures, Automata and Computability Theory and Software Engineering. Upon completion of the majority of the core classes, students advance into the areas of computer architecture, database systems, systems programming, computer networking and telecommunications, artificial intelligence, computer security, graphics and simulation.

Students have the opportunity to take courses in COBOL, E-Commerce, mobile application design, UNIX and GUI (graphical user interface) programming.

A minor area of study is required for the computer science major. A department advisor will help students select courses for a minor that will best complement their special interests and career goals. A minor in one of the College of Business and Technology areas is recommended for those considering careers in commerce. Minors in engineering technology, mathematics and law enforcement and justice administration have also proven useful to graduates.

## Integrated Five-Year BS/MS Option

Today's technology-dependent and ever-changing technology environment requires graduates with strong technical and leadership skills. In response to this need, Western's School of Computer Science offers an integrated program that will allow students to complete both a Bachelor of Science degree and a Master of Science degree in just five years.

The program provides an opportunity for outstanding undergraduates to complete a traditional four-year undergraduate degree in computer science and then, with one additional year, earn a master's degree. Detailed information on this program is available from the department advising office by calling (309) 298-1619 or by e-mailing C-Science@wiu.edu.

## Faculty

The most important resource Western can provide to its students is its faculty. The computer science faculty is well-prepared to give students the education they want and deserve. Students will find senior professors working with freshmen and Ph.D. faculty from the finest institutions dedicated to providing the best possible instruction in the classroom.

## Scholarships

Detailed information on scholarships is available from the department advising office, (309) 298-1619; Western's Scholarship office, (309) 298-2001; or on the Web at wiu.edu/Scholarship.

## Honors in Computer Science

To be eligible for the Centennial Honors College, entering freshmen must have an ACT composite score of at least 28 OR have a 26 or 27 composite ACT and be in the top 15 percent of their graduating class OR have an ACT composite score of at least 24 and be in the top 10 percent of their high school graduating class. A comparable SAT score is acceptable. Transfer and current WIU students who wish to join the Honors College (including the Quad Cities Honors Program) must have a 3.4 grade point average on a 4.0 scale based on 12 or more semester hours. Honors credit is given for honors coursework completed at other accredited institutions. To find out more, visit wiu.edu/Honors.

General honors seminars in the humanities, sciences and social sciences provide students with the opportunity to explore key academic issues with distinguished faculty members. In computer science, honors students take courses for honors credit and are eligible to take honors seminars.

## Student Activities

Western advises students to become involved in other activities such as music, theatre, intramural sports, the student newspaper, student government and, of course, the Computer Science Association (CSA). CSA is one place where students are welcomed by others with similar interests and where students can learn about the latest advances through field trips and special presentations. It is a vital part of students' total education. Western's School of Computer Sciences also hosts a chapter of the National Honorary Computer Society, Upsilon Pi Epsilon. This society provides special recognition to outstanding computer science majors.

## Computer Facilities

At Western, students will have access to a large IBM mainframe and SUN computers, as well as large laboratories of the latest microcomputers. The access to microcomputers is as good as any university in the United States. It is WIU's goal to give students experience on a variety of computing equipment and its associated software so that they can judge which type of equipment is best suited for the problems they encounter during their working career. Students will work on at least three different types of computers during their first four semesters at Western.

## After College

The demand for computer specialists grows every year. WIU computer science graduates are well-prepared for a variety of career opportunities in every conceivable type of commercial, industrial, government, research and educational organization. WIU graduates have found outstanding opportunities with companies like Blue Cross/Blue Shield; Boeing; Caterpillar; Country Companies Insurance; Deere & Co.; Inforte; Intel; Kraft Foods; Levy, Ray & Shoup; Lockheed Martin; Motorola, Inc.; Principal Financial Group; Ralston Purina; Rock Island Arsenal and State Farm. Many graduates have decided to specialize in an advanced area and have chosen to continue their education in Western's graduate program.

## For More Information

For more details on the computer science major, visit wiu.edu/cs.

## Campus Visits

The Admissions Reception Center (Sherman Hall 115) is open most weekdays from 8 a.m.-4:30 p.m. when the University is in session. Group information sessions are available on Mondays and Fridays at 10 a.m. and 1 p.m., and individual appointments can be made on Tuesdays, Wednesdays and Thursdays. Campus tours are conducted at 11 a.m. and 2 p.m., Monday through Friday. Appointments with advisors, faculty or a financial aid advisor may be arranged separately during the week. The Admissions Reception Center is open from 9 a.m.-1 p.m. most Saturdays when the University is in session. A group information session is available at 10 a.m., and a campus tour is conducted at 11 a.m. Students may schedule a visit or tour online at wiu.edu/admissions by selecting "Visit Campus." Students may also schedule a visit, tour or individual appointment by calling toll free (877) PICKWIU (742-5948) or (309) 298-3157, or by emailing admissions@wiu.edu.

# wiu.edu/computerscience

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