## COMPUTER SCIENCE IN



### **EXPLORE ALL ASPECTS**

The Bachelor of Science in Computer Science offers a major exploring all aspects of computer science, including programming, artificial intelligence, and database design. Major courses culminate in an extensive internship. This program offers tremendous exposure to problem-solving using computers and provides graduates with the tools and experiences necessary to enter a variety of fields and businesses.

#### WHAT IS COMPUTER SCIENCE?

Computer science is the study of computation and primarily deals with software systems, including their theory, design, development, and application.

Computer science includes:

- Artificial Intelligence
- Bioinformatics
- Computer Security
- Cryptography
- Databases
- Data Analysis

- Graphics
- Numerical Analysis

Data Visualization

- Programming
- Software Engineering

#### **REQUIREMENTS**

The Computer Science Major requires 75 credit hours in the Department of Mathematics and Computer Science.

#### Courses consist of:

- Foundational Programming
- Fundamental Computer Science including- Data Structures, Combinatorial Computing, Theory of Computation
- Advanced Computer Science including-Operating Systems, Artificial Intelligence, Algorithms
- Computer Science electives
- Internship/Programming Team
- Calculus

#### Additional coursework

Additional credits from general education and electives are needed to complete a minimum of 120 credits for graduation.

FOR MORE INFORMATION CONTACT: **DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE** 

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# BACHELOR OF SCIENCE IN COMPUTER SCIENCE

#### **CAREER OPPORTUNITIES**

Graduates will find career opportunities in:

- Artificial Intelligence
- Business Intelligence Analysis
- Computer Security
- Computer Systems Analysis
- Data Analysis
- Mobile Development
- Systems Development
- Web Development and other related fields

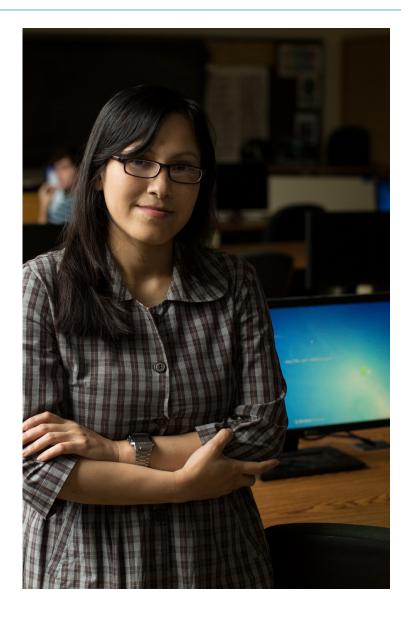
Additionally, graduates will be prepared to pursuse advanced degrees in computer science.

#### PROGRAMMING TEAM AND INTERNSHIPS

The Computer Science Major is unique in that it offers you two opportunities to apply what you've learned in two different settings prior to graduation!

As a member of the programming team you have the opportunity to travel and compete in contests that put your programming and problem solving skills to the test in a fun and competitive atmosphere.

During an internship you have the opportunity to solve and work on real issues businesses, nonprofits, and other organizations face every day. Many internships can lead to eventual job placements.



"The Math and CS department provides an outstanding learning environment for its students. Not only does the faculty make sure their students are comfortable with and understand the material, but they also ensure their students are developing essential skills for their future, whether that be graduate school or a career."

Jenalee Reardon

"During my time at EIU I have had the chance to be part of the computer programming team, attend conferences, and take part in research opportunities. Through all of this I have had the support and encouragement of the faculty, as they set aside time to ensure I get the most out of each of these opportunities."

Brian Bourne

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