

Computer and Information Sciences

Concentrations

- Computer Graphics and Games (CGG)
- Computer Programming and Information Systems (CPIS)
- Computer Science (CS)
- Networking and Security (NS)

About the Program

Computer science is the study of computers and computational systems: their theory, design, development, and applications. Computer scientists design and analyze algorithms to solve problems, and develop and study the performance of computer hardware and software. Computer scientists work in challenging and rewarding jobs that encompass design, environmental planning, management, manufacturing, system engineering, law, medicine, teaching, and many other exciting areas.

The computer and information sciences program at Shepherd University is a comprehensive program with concentrations in computer graphics and games (CGG), computer programming and information systems (CPIS), computer science (CS), and networking and security (NS). **Our approach is to teach students fundamental principles and problem-solving skills so that they are able to become creative problem solvers, develop and manage state-of-the-art computing systems, and have productive careers in computer science or information technology.** Graduates of the program will be prepared to apply their knowledge professionally in the computer industry or to pursue graduate studies.

The four concentrations provide students flexibility to choose a course of study most interesting to them. Our students are encouraged to double-major in mathematics, engineering, economics, business, or psychology.

Careers

Employment opportunities are available **within a comfortable distance from Shepherd**. Every year students obtain internship and co-op opportunities with employers such as U.S. Coast Guard Technology Center, U.S. Veterans Hospital, and the IRS.

The Washington Gateway Program is available to students who wish to take advantage of the **educational, intellectual, and cultural resources available in the Washington metropolitan area**. In the past our students have benefited from field trips to the National Security Agency, the FBI, the Spy Museum, and numerous other sites in Washington, D.C., area.

"The internship has helped me get an idea of what a professional work environment is like. I've had a lot of help from my mentors and other staff. It's a good experience all around."

—Bobby Plume



Shepherd students interned at U.S. Coast Guard Operations Systems Center, Kearneysville, West Virginia.

Get Involved

Security Intrusion and Detection Club

Also known as the "whitehat hacking club," the Security Intrusion and Detection Club was formed mid-2010 and its focus and goals are to learn about cyber security and exploitation as a way to improve club members' ability to make systems more secure.

The Institute of Electrical and Electronic Engineers (IEEE)

The Institute of Electrical and Electronic Engineers is the largest professional association focused on technological innovation and how it can benefit humanity. The Shepherd University branch was started in 2013 and continues to help provide innovation to the campus.



Robotics Club

Shepherd University's Robotics Club is an organization that focuses on the theory and process of creating robots, from the initial design process to the successful building of a functioning bot.



Contact

For more information about the program, contact:

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Apply today:

www.shepherd.edu/admissions/apply-to-shepherd

For information about financial aid, visit:

www.shepherd.edu/financialaid

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Points of Pride

- Our graduates from the computer and information science program are currently holding **full-time positions** as software engineers, web developers, database administrators or developers, and network security engineers.
- Students have the **opportunity to conduct research projects** under the supervision of faculty advisors and to present their research results at **state, regional, and national conferences**. The research projects are supported by grant programs such as West Virginia IDeA Network of Biomedical Research Excellence (WV INBRE), National Aeronautic and Space Administration (NASA), and Shepherd Opportunities to Attract Research Students (SOARS).
- Some graduates pursue graduate studies in computer science or related fields.