

Computer Science

The Computer Science major is a four-year program designed to give students the knowledge to develop and use computer algorithms and computer-based systems. In addition, the students will learn computing and mathematical principles that are used in the analysis and design of such systems. Students are provided with the fundamentals of the mathematics of computers, computer programming, operating systems, database management and computer security, all of which provide a firm foundation upon which to apply and research new technologies. Students completing this program are prepared to function effectively in a variety of careers as software developers, information technology consultants, information technology analysts, database administrators, and systems analysts. Students are also prepared for rigorous graduate degree studies in the computing sciences.

What Type of Work are Related to this Degree?

- Technical support
- Teaching (non-licensure)
- Instructional technology
- Software design and development
- Systems development/analysis
- Web design/maintenance
- Programming
- Systems integration
- Intranet maintenance
- IT consulting/analysis
- Database administration
- Research and development
- Sales and marketing
- Technical writing

Who Employs People with this Degree?

- Financial institutions
- Retailers/Retail stores
- Insurance companies
- Consulting firms
- Manufacturers
- Transportation companies
- Research institutions
- Education institutions
- Healthcare organizations
- Hotels and restaurants
- Entertainment companies
- City, state and federal government
- Telecommunications companies
- Environmental management firms
- City, state and federal government
- Internet exchange points (IXPs)
- Internet service providers
- Software vendors & Software/hardware manufacturers
- Systems developers
- Technical service providers

More information at ONETonline.org

General Strategies for Success:

- Note that an interest in computers may not translate into an interest in computer science, as the major is heavily programming and math-based.
- To enter the gaming industry, investigate training programs specific to game design and seek as much exposure to designing as possible. Pursue entry-level opportunities, such as being a tester, to gain experience.
- Prepare to learn new information on a regular basis through online discussions, classes, conferences, and periodicals. Update your skills accordingly.
- Obtain vendor-specific or networking certifications to gain a competitive edge for some positions.
- Expect to work extended and/or irregular hours, and at times be "on call."
- Consider earning a minor in math or pursuing it as a second major, as a computer science major is heavily math-based.
- Develop strong interpersonal, communication and teamwork skills. Patience and perseverance are essential for computer science professionals.

Professional Associations

Association of Information Technology Professionals, Software & Information Industry Association, Association for Computing Machinery, Computing Research Association, Computer Professionals for Social Responsibility, Association for the Advancement of Artificial Intelligence, and International Webmasters Association

This information represents possible occupations and strategies for careers with this major. As with any job or career, there may be additional qualifications or experience needed. For more information and options, make an appointment with Career & Leadership Development or check out our online resources on our website or on myUNW, Career & Leadership Development tab.