Computer Science

About the Major

Computer and information science emphasizes a fundamental understanding of computing, information processing, and information communication. You will learn basic principles of computing and data processing, including the creation, representation, storage, transformation, and transmission of information. The major exposes you to language processing, end-use applications, principles of computer hardware and software components, databases, application testing, and more. As the field of computing is constantly changing, career options will continue to emerge.

Marketable Skills and Abilities This Major Develops

- The ability to communicate mathematical concepts and data to diverse audiences
- Experience analyzing problems and design technical solutions using computing technology
- Comfort adapting to new and changing technology
- Skills in developing client specific systems for processing data
- Skills in designing and coding computer programs
- Proficiency in multiple programming languages
- Efficient use of computers and software to process large amounts of information, solve problems, and create original content

Relevant Fields

- Computer Operations & Programming
- Consultancy
- Education
- Information Technology Operations Research Analysis
- Security
- Software Design
- System Analysis

Occupational Titles/Careers With Bachelor's Degree

- Business Intelligence Analyst
- Computer Programmer
- Web Developer
- Web Designer
- Network Engineer
- Operations/Data Systems Analyst
- Software Engineer

Sample Coursework

- Data Structures
- Computing
- Calculus and Discrete Mathematics
- Operating Systems
- Software Engineering
- Web Programming

Career Opportunities and Job Outlook

Employment of computer and information technology occupations is projected to grow 13% from 2016 to 2026, faster than average for all occupations, and is projected to add about 546,100 new jobs. Computer network and computer user support specialists, systems analysts, and database administrators will experience growth while information security analysts and software applications developers will be in highest demand.

Salary Estimates

Payscale's 2019 College Salary Report listed that computer science graduates earned an average early career salary of $68,600 and a mid-career salary of $114,700.

(This section is intended for informational purposes, not prediction of actual salary.)

Advanced Degrees

- Computer Engineering
- Cybersecurity
- Data Science
- Database Administration
- Information Technology Architecture
- Business Administration
- Operations Research and Analysis

Professional Associations

- [Association for Computing Machinery](#)
- [Data Management International](#)
- [Institute of Electrical and Electronics Engineers](#)
- [The League of Professional System Administrators](#)
- [National Center for Women and Information Technology](#)
- [National Workforce Center for Emerging Technologies](#)