Computer Science

Computer Science is the study of computers, including their design (architecture) and how we use them. From performing computations, data processing and systems control, to creating virtual reality and artificial intelligence the field has vast applications. Computers are becoming increasingly integrated into various facets of modern life; such as a refrigerator that aid consumers in keeping inventory of its contents to the computer in cars that releases an airbag in the event of an accident. Think of this: car makers are integrating computer systems that recognize the drivers’ voice. Once science fiction, drivers can now tell their cars to change the radio station or make a phone call. This is possible because of computer science. Colorado Mesa University offers a B.S. in Computer Science.

Colorado Mesa University’s Computer Science program, with a low student to teacher ratio, allows students to gain individual attention directly from professors. The core program at CMU offers courses in algorithms, data structures, logic, programming languages, software design, and advanced mathematics. Students can choose from a variety of computer related electives such as web page design, artificial intelligence, computer graphics, video game programming, databases, multi-media, and networks. Upper level students have opportunities to participate in independent research with faculty and internships with local businesses.

A person in this career field may:

- Make computer programs compatible with each other.
- Develop new systems to fix business problems.
- Create new science technology.
- Research new ways to enhance computers.
- Develop video games or software programs.
- Develop robots.

Major Skills & Characteristics

- Write and speak well
- Learn new information quickly
- Work well in a team
- Multi-tasking
- Mathematical skills
- Organizing/categorizing skills
- Critical thinker
- Systematic
- Research skills
- Must be thorough
- Work well independently
- An attention to detail
- Be creative
- Interpersonal skills
- Ability to solve problems
Organizations That Commonly Employ Computer Science Majors

- Computer vendors
- Banks and finance institutions
- Gaming Industry
- Retail chains
- Manufacturers
- Universities/colleges
- Research laboratories
- Management consulting firms
- Telecommunications
- Technical journals
- Computer development firms
- Military
- International agencies
- Software and computer companies

Related Careers

- Aerospace engineer
- Air traffic controller
- Applications programmer
- Applied science technologist
- Artificial intelligence programmer
- Astronomer
- Biometrician
- Computer consultant
- Computer engineer
- Computer facilities manager
- Computer installation and test specialist
- Computer marketing/sales representative
- Computer programmer
- Computer scientist
- Computer-aided design tech
- Cryptographer
- Data control administration
- Data processing manager
- Database manager
- Demographer
- Econometrician
- Environmental technologist
- Information scientist
- Inventory control specialist
- Market research analyst
- Mathematician
- Media buyer
- Meteorologist
- Numerical analyst
- Operations research analyst
- Production manager
- Production support specialist
- Public health statistician
- Purchasing/contract agent
- Quality assurance agent
- Rate analyst
- Research analyst
- Robotics programmer
- Satellite Communications specialist
- Software development
- Statistician
- Systems analyst
- Systems engineer
- Systems programmer
- Teacher: mathematics or science
- Technical support representative
- Technical writer
- Urban planner
- Value engineer
- Weight analyst

Note: Some of the occupations listed above may require additional education, experience, or training beyond a Bachelor’s Degree. To research these occupations use the Career Research Resources links below.
Career Research Resources:

*Use these sites to research information about specific occupations such as nature of the work, training or qualifications, employment or job outlook, projections, earnings and wages.*

**O*NET-Online: [http://www.onetonline.org](http://www.onetonline.org)**
The U.S. Department of Labor
- In the occupational search box type in key words, job titles, or occupational codes to research various careers.

The Bureau of Labor Statistics
- View OOH information on **Computer Software Engineers and Programmers** at [http://stats.bls.gov/oco/ocos303.htm](http://stats.bls.gov/oco/ocos303.htm)
- Use the A-Z index to select the occupation you are researching.

**My Future.com: [http://www.myfuture.com](http://www.myfuture.com)**
The Department of Defense
- This site compiles information from departments of **Commerce, Education** and **Labor**.

**Organizations and Associations Links**
- **American Mathematical Society**: [www.ams.org](http://www.ams.org)
- **American Society for Information Science and Technology**: [http://asis.org](http://asis.org)
- **Association for the Advancement of Artificial Intelligence**: [www.aaai.org](http://www.aaai.org)
- **Association for Women in Computing**: [http://awc-hq.org](http://awc-hq.org)
- **Computer Professionals for Social Responsibility**: [http://cpsr.org](http://cpsr.org)
- **Society for Industrial and Applied Mathematics**: [http://siam.org](http://siam.org)

**Job Listings/Job Search Sites:**
- **Computer Jobs Help**: [www.computerjobshelp.com](http://www.computerjobshelp.com)
- **Computer Science Jobs**: [www.computersciencejobs.net](http://www.computersciencejobs.net)
- **Computer Science Jobs**: [www.jobscomputerscience.com](http://www.jobscomputerscience.com)
- **CSJobs.com**: [http://csjobs.com](http://csjobs.com)
- **Indeed**: [www.indeed.com](http://www.indeed.com)
- **New Scientist**: [http://jobs.newscientist.com](http://jobs.newscientist.com)
- **Person Force**: [www.personforce.com](http://www.personforce.com)