

# Computer Science

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## Programs in Computer Science

| Program Description  | Type        | Degree |
|--|-------------|--------|
| Computer Science, B.S. ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/bs-computer-science/">http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/bs-computer-science/</a> )   | Degree      | B.S.   |
| Computer Science, Minor ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/minor-computer-science/">http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/minor-computer-science/</a> )  | Minor       |        |
| Computer Science Cybersecurity, Academic Certificate ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/certificate-computer-science-cybersecurity/">http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/certificate-computer-science-cybersecurity/</a> ) | Certificate |        |

The Computer Science Program offers a Bachelor of Science degree in Computer Science, a minor in Computer Science, as well as a Certificate in Cybersecurity.

The goal of the Computer Science Program at Idaho State University is to provide students with a broad, yet rigorous Computer Science education, with emphasis in

- operating systems
- computer organization and architecture
- data structures and algorithms
- software design and implementation
- programming languages
- software project management
- machine learning and artificial intelligence

The curriculum incorporates 30 credit hours of math and science, including

- differential and integral calculus
- linear algebra
- discrete mathematics
- statistics and probability
- physics

The B.S. in Computer Science prepares graduates to enter a wide range of high-paying careers, including

- software engineering
- computer vision
- databases
- cybersecurity
- data science

Seventy percent (70%) of the new STEM jobs over the next decade are expected to be CS related. National starting salaries are around \$65,000 with career salaries averaging \$147,000 (Robert Half, 2017). CS majors with MSCS or MBA degrees in technical and/or management positions are expected to earn significantly more.

Students wishing to become Computer Science majors should contact the CS office to have an advisor assigned to them. All courses and prerequisites applying

toward the Computer Science major and minor must be passed with a grade of “C-“ or higher.

For all CS courses after CS 1181, students are expected to have a laptop computer with sufficient capacity to execute various software tools within virtual machines.

Faculty (<http://coursecat.isu.edu/undergraduate/scienceengineering/computerscience/computer-science-faculty/>)

CS Courses (<http://coursecat.isu.edu/undergraduate/allcourses/cs/>)