The Computer Science program prepares students for roles across the breadth of computer science, in industry, service, and research. Our approach to computer science includes a rigorous and balanced core of mathematical, theoretical and practical knowledge about computation. Students in our department are offered electives in topics like robotics and bioinformatics programming, which challenge the students to deeply employ the tools of their discipline. Our approach also emphasizes active engagement of students in the learning process both in and beyond the classroom. To support this approach, faculty vigorously pursue professional development.

Majors have access to a departmental lab, which provides dual-booting Linux and Windows platforms with many language compilers. Our Internet Teaching Laboratory (ITL) provides an isolated network for network design experimentation and student investigations in computer security. The ITL lab also serves as the department's center for robotics instruction by housing a collection of robot kits used for courses held in neighboring lab spaces. Servers for n-tier application development are also available to students.

Students participate in the Computer Science Club, affiliated with the national Association for Computing Machinery (ACM). Many students enjoy internship and study abroad opportunities. Faculty typically hold memberships with professional organizations including the ACM, IEEE Computer Society, and the Consortium for Computing Sciences in Colleges.

Numerous careers are available to graduates in this major, including software engineering and software development; network maintenance, implementation, and design; database design and web interface development; scientific computing; and innumerably more. Many of our students pursue graduate studies in areas such as computer graphics, parallel computing, man-machine interfaces, data communications, computational philosophy, expert systems, artificial intelligence, embedded computer applications, distributed systems, and networking.

The job forecast for computer specialists is outstanding. More than 750,000 new jobs will be created between 2008 and 2018, according to the Federal Bureau of Labor Statistics. An analysis of their data by Calvin College revealed that 71% of the anticipated increase in all science and engineering jobs will be in computing. The National Association of Colleges and Employers reports consistently high wage growth across the industry.

Some of the career possibilities listed may require additional or specialized coursework.