College: MCECS
Department: Computer Science
Degree: BS

Introduction
The computer science program is designed to provide students with the educational background required for a professional career in the computing industry and for further study at the graduate level. The program includes a core of required courses and an elective program of courses over a wide range of topics. Seniors work in teams to carry out community-based projects during the two-term capstone course in software engineering.

The computer science curriculum at Portland State University is accredited by the Computing Accreditation Commission of ABET. This national organization sets standards for computer science education defined in terms of curricular content, quality of faculty, and adequacy of facilities.

Undergraduate Program Learning Outcomes
Adapt algorithms and data structures drawn from a large standard repertoire to new problems.

- Assess new developments in computer science.
- Communicate with other members of development teams and with customers.
- Computing at all levels of abstraction, including: (a) circuits and computer architecture; (b) operating systems; (c) programming languages, and (d) algorithms.
- Debug and test programs.
- Develop program designs from specifications under a variety of software paradigms/ architecture.
- Develop program specifications from a variety of informal descriptions.
- Engineering principles used to meet the challenge of large-scale software production.
- Implement selected designs as programs in a variety of programming languages.
- Mathematical foundations of computer science.
- Perform quantitative evaluation of program behavior by experiment.
- Present the results of their work as written technical documents.
- Present the results of their work orally.
- The ethical and legal responsibilities of computing professionals.
- The impact of computing on society.
- The interdependence of hardware and software.
- The management and sharing of persistent data.
Use analytical techniques to evaluate and compare different designs that meet specifications.