Introduction
The BSCE degree includes required courses in the analysis and design of structures, applied hydraulics, surveying, soil mechanics and foundations, engineering project management, transportation engineering and environmental/water resources engineering. Students often choose a specialty area in their senior year: structural analysis and design, environmental engineering, water resources, transportation engineering or geotechnical engineering. Students are encouraged to speak with faculty members in specialty areas to find out more about these fields.

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

Undergraduate Program Learning Outcomes

BSCE Program Outcomes

Graduates of the Civil Engineering program at Portland State University will have the skills and abilities to prepare them to begin professional practice or to succeed in graduate studies.

Graduates will have:

(A) An ability to apply principles of mathematics, science, and engineering to the analysis and design of civil engineering projects.

(B) An ability to design and conduct experiments, as well as to analyze and interpret data.

(C) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.

(D) An ability to participate in projects that cross disciplines and to function on multi-disciplinary teams.

(E) An ability to identify, formulate, and solve engineering problems.

(F) An understanding of the professional and ethical responsibility of engineers in a broad societal context.

(G) An ability to communicate effectively.

(H) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.

(I) A recognition of the need for, and an ability to engage in continuing professional development and life-long learning.

(J) A knowledge of relevant contemporary issues.

(K) An ability to use the modern techniques, skills, and engineering tools necessary for engineering practice.
(L) An ability to apply knowledge in the following civil engineering discipline areas: structural, geotechnical, environmental/water resources, and transportation.

(M) An awareness of the need for professional registration in career development.