

Educational Objectives & Outcomes

**Bachelor of Science – Civil Engineering
Boise State University**

Mission

To provide a high quality, Civil Engineering program, a recognition of the engineer's right and responsibilities to the public and the profession, communication skills and an appreciation for life-long learning through opportunities for continuing education and graduate degrees.

Source:

2 <http://coen.boisestate.edu/ce/CEobjoutcomes.asp>

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Program Vision

The mission of the Boise State University (BSU) Civil Engineering Department is to be accomplished through undergraduate teaching, graduate studies and research.

Source:

<http://coen.boisestate.edu/ce/CEobjoutcomes.asp>

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Program Educational Objectives

As a graduate from the Civil Engineering Program, you will be expected to:

- Use your technical knowledge and communication skills to evaluate and solve problems in a wide variety of civil engineering applications
- Demonstrate the highest standards of professional integrity and ethical responsibility for public health and safety
- Work with the complex interactions of a variety of contemporary socio-economic issues
- Continue your education through use of your developed research and study skills or through formal continuing education opportunities.

Source:

<http://coen.boisestate.edu/ce/CEobjoutcomes.asp>

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Program Educational Outcomes

- ❑ An ability to apply knowledge of at least one additional area of science, consistent with the program educational objectives, and engineering
- ❑ An ability to design and conduct civil engineering experiments, as well as to analyze and interpret the resulting data
- ❑ An ability to design a system, component, or process in more than one civil engineering context to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

Source:

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Program Educational Outcomes

- ❑ An ability to function on multidisciplinary teams
- ❑ An ability to apply knowledge of four technical areas appropriate to civil engineering to identify, formulate, and solve engineering problems.
- ❑ An understanding of professional and ethical responsibility and the ability to explain the importance of professional licensure
- ❑ An ability to communicate effectively
- ❑ The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.

Source:
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Program Educational Outcomes

- ❑ A recognition of the need for, and an ability to engage in life-long learning
- ❑ A knowledge of contemporary issues
- ❑ An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- ❑ An ability to explain basic concepts in management, business, public policy, and leadership

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CODE OF ETHICS

Of the American Society of Civil Engineers



Fundamental Principals

Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:

- Using their knowledge and skill for the enhancement of human welfare and the environment
- Being honest and impartial and serving with fidelity the public, their employers and clients
- Striving to increase the competence and prestige of the engineering profession and supporting the professional and technical societies of their disciplines

Source: www.asce.org

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Fundamental Canons

- Engineers shall hold paramount the safety, health and welfare of the public and shall strive to comply with the principles of sustainable development in the performance of their professional duties
- Engineers shall perform services only in areas of their competence
- Engineers shall issue public statements only in an objective and truthful manner
- Engineers shall act in professional matters for each employer or clients as faithful agents or trustees, and shall avoid conflicts of interest



Fundamental Canons

- ❑ Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others
- ❑ Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero-tolerance for bribery, fraud, and corruption
- ❑ Engineers shall continue their professional development throughout their careers, and shall provide opportunities for the professional development of those engineers under their supervision