



CSU Bakersfield

School of Natural Sciences, Mathematics, and Engineering

Department of Physics and Engineering

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Bachelor of Science degree in Engineering Sciences Student Outcomes

The program's student outcomes are the same for all options (Bachelor of Science in Engineering Sciences, Bachelor of Science in Engineering Sciences with Emphasis in Biosystems and Agricultural Engineering, Bachelor of Science in Engineering Sciences with Emphasis in Engineering Management, Bachelor of Science in Engineering Sciences with Emphasis in Energy and Power Engineering, and Bachelor of Science in Engineering Sciences with Emphasis in Petroleum Engineering). These outcomes are identical to those listed by the Engineering Accreditation Commission of ABET. Thus, upon the successful completion of the Bachelor of Science in Engineering Sciences program at California State University, Bakersfield, students will have achieved the following:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. an ability to communicate effectively with a range of audiences.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Approval. ABET implemented changes to the Criterion 3 Student Outcomes from a to k to 1 to 7. The Engineering Faculty at CSUB changed the Student Outcomes during Fall 2019.