Bachelor of Science in Mining Engineering†

Department of Mining and Geological Engineering

Mapping of Program Outcomes to ABET A-K Criteria

	Program Objectives:	1	2	3	4	5	6
	ABET Outcomes:	Utilize their engineering, science, and computational skills to advance in their careers, including the ability to adapt to a future global minerals industry with new and unforeseen challenges	Utilize and continue to develop skills in communication , technical writing, leadership, and working effectively in teams	Engage in lifelong learning, including active engagement in professional organizations and the ability to pursue advance degrees in minerals-related technical fields, as well as fields that support the minerals industry such as environmental science, business, law, and international languages and cultures	Recognize and consider the importance of health, safety, communities, and the environment in a balanced approach to mineral resource development, and the importance of mining engineers in helping to achieve that balance	Possess high professional and ethical standards, including the effective management of tasks and projects through organization, planning, analysis of risks, scheduling, and the management of resources	Prepare for and attain licensure as a Professional engineer, if so desired
a	An ability to apply knowledge of mathematics, science, and engineering	√		√			√
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 function on multidisciplinary teams	√		√		√	
e	An ability to identify, formulate, and solve engineering problems	√		√			√

†Accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

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f	An understanding of professional and ethical responsibility	√			√	√	√
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 life-long learning	√		√			√
j	A knowledge of contemporary issues	√		√	√		√
k	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	√		√			√