

Program Educational Objectives & Outcomes

Program Educational Objectives

The faculty of Engineering is committed to the following objectives which are consistent with both the University and the Division mission statements and emphasize the head (intellectual), heart (spiritual), and hand (professional).

1. HEAD - John Brown University engineering graduates will have a strong general education, a broad foundation in engineering fundamentals, and a depth of knowledge in a specific engineering discipline sufficient to ensure both immediate application and life-long learning.
2. HEART - John Brown University engineering graduates will be aware of their personal and professional responsibility to serve both God and humanity.
3. HAND - John Brown University engineering graduates will be prepared and confident to begin an entry-level engineering position, pursue graduate studies, or contribute as a Christian technical missionary.

Program Outcomes

A graduate from the John Brown University Engineering program should have:

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 in the light of a Christian worldview, 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.