**BSEE Educational Objectives**

Part of the mission of the Department of EECS is to prepare students to pursue a career in industry or academia. For EE students this is accomplished by developing their:

(I) Depth and breadth of knowledge in electrical engineering as evidenced by an understanding of engineering and science coupled with the capacity to produce feasible and responsible solutions to complex electrical engineering problems;

(II) Literacy as evidenced by skills in writing, reading, speaking, and listening;

(III) Critical thinking as evidenced by skills in interpretations, analysis, evaluation, inference, argumentation, and reflection;

(IV) Values as evidenced by the ability to make reasoned and ethical choices, and to accept responsibility for them;

(V) Interpersonal skills as evidenced by leadership ability, appreciation for diversity, and the capacity to work effectively with others;

(VI) Lifetime learning skills as evidenced by the ability to adapt to innovation and change.

**BSEE Educational Outcomes**

In addition to successfully completing the requirements for the BSEE program, graduates from this program must also achieve the following educational outcomes:

(a) An ability to apply knowledge of mathematics & science.
(b) An ability to design and conduct experiments, analyze and interpret data.
(c) An ability to design systems to meet specifications.
(d) An ability to function independently and on teams.
(e) An ability to identify, formulate and solve engineering and scientific problems.
(f) An understanding of professional, ethical and safety considerations.
(g) An ability to communicate effectively, both orally and in writing.
(h) An understanding of the role of science and engineering in society.
(i) A recognition of the necessity of lifelong learning.
(j) An understanding of contemporary issues through a broad liberal arts education.
(k) An ability to use the modern tools necessary for professional practice.
(l) An ability to think critically as evidenced by skills in interpretation, analysis, evaluation, inference, argumentation, and reflection.
(m) An understanding of the concept and process of modeling of electrical systems.
(n) The ability to design and conduct experiments in electrical systems as well as to analyze and interpret data.
(o) The ability to design a system, component, or process to meet desired needs of electrical systems.
(p) The ability to identify, formulate, and solve electrical engineering problems.