**BSCE Educational Objectives**

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

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

(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.

**BSCE Educational Outcomes**

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

(a) An ability to apply knowledge of mathematics and science.

(b) An ability to design and conduct experiments, and 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 principles of construction of computing systems.

(n) An understanding of abstraction and refinement of computing systems.

(o) An ability to predict and reason about design correctness and performance of computing systems.

(p) An ability to use methods and practices to design correct and reliable computing systems.

(q) An ability to test and verify that computing systems are in fact correct and reliable.