

Objectives and Outcomes for the BS in Computer Engineering

Objectives

- I. To provide a solid education in computer engineering in a liberal arts setting that prepares the student for graduate study or entrance into a profession in computing technology.
- II. To help students develop the ability and mental precision necessary to analyze, think critically, consider alternatives, and finally to be creative in computer engineering.
- III. To provide courses and personnel that view computer engineering as part of the human endeavor, that is, to see computer engineering in relation to more general intellectual development and to the needs of society.
- IV. To foster an aptitude and desire for life-long learning.

In other words we want to turn out students who will not only contribute to the field of engineering but also succeed in life. These goals are reflected in our program objectives which are designed to produce graduates who, as practicing engineers, are able to:

Contribute to their field of study
Apply sound design methodology and tools to solve engineering problems
Respect their role in society
Expand their knowledge after graduation

We call these our CARE objectives.

In order to satisfy these objectives we have several outcomes which are expected of our students at the time of graduation. These outcomes are continually monitored.

Outcomes

1. Strong interpersonal skills needed for working effectively in small, diverse groups on medium to large scale technical projects
2. Strong oral communication skills essential for effectively presenting technical material to an audience
3. Strong written communication skills and the ability to write technical documents that include specification, design, and implementation of a major project
4. Comprehension of the social and ethical implications of working in the field of computer engineering and their role as computer professionals in relation to themselves, others and the environment
5. Competence in fundamental and advanced knowledge of hardware and software
6. Proficiency in problem solving
7. The ability to design and implement systems involving hardware, software, and the interaction between the two through challenging projects
8. Initiative and aptitude for self-directed learning

The relationship between these outcomes and the program objectives are mapped below:

<u>Objective</u>	<u>Outcome(s)</u>
Contribute	1, 2, and 3
Apply	5, 6, and 7
Respect	4
Expand	8