Program:	Computer Engineering – Electrical Track
Degree:	BS
Department:	Electrical and Computer Engineering
Contact Name:	Windy M. Lala
Contact Phone:	979/458-3127

Outcome	**Master the depth of knowledge required for a degree**
Marketable Skills	• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics • (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions • (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Outcome	**Demonstrate critical thinking**
Marketable Skills	• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics • *Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. • *Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

Outcome	**Communicate effectively**
Marketable Skills	• (3) an ability to communicate effectively with a range of audiences • *Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Outcome	**Practice personal and social responsibility**
Marketable Skills	• (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Outcome	**Demonstrate social, cultural, and global competence**
Marketable Skills	• (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

Outcome	**Prepare to engage in lifelong learning**
Marketable Skills	• (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies • *Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.

Outcome	**Work collaboratively**
Marketable Skills	• (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 • (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 • (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions • *Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Notes:

- Marketable skills listed with an asterisk (*) for this example program were drawn from the Knowledge, Skills, and Abilities identified by the US Department of Labor and Statistics for "computer hardware engineers" as published on O*Net Online (onetonline.org)
- Marketable skills listed with a letters (1)-(7) for this example program were drawn from ABET Criterion 3.
- Alternate sources for degree-specific marketable skills include learning outcomes and associated metrics used for programmatic assessment
- Learning outcomes or skills required for programmatic accreditation

Program:	Computer Engineering – Computer Science Track
Degree:	BS
Department:	Electrical and Computer Engineering
Contact Name:	Scott Schaefer
Contact Phone:	979-862-4673

Outcome	**Master the depth of knowledge required for a degree**
Marketable Skills	• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics • (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions • (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Outcome	**Demonstrate critical thinking**
Marketable Skills	• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics • *Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. • *Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

Outcome	**Communicate effectively**
Marketable Skills	• (3) an ability to communicate effectively with a range of audiences • *Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Outcome	**Practice personal and social responsibility**
Marketable Skills	• (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Outcome	**Demonstrate social, cultural, and global competence**
Marketable Skills	• (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

Outcome	**Prepare to engage in lifelong learning**
Marketable Skills	• (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies • *Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.

Outcome	**Work collaboratively**

Marketable Skills	• (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 • (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 • (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions • *Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

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