

Program:	Electrical Engineering
Degree:	BS
Department:	Electrical and Computer Engineering
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<b>Outcome</b>	<b>Master the depth of knowledge required for a degree</b>
Marketable Skills	<ul style="list-style-type: none"> <li>• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</li> <li>• (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions</li> <li>• (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</li> </ul>

<b>Outcome</b>	<b>Demonstrate critical thinking</b>
Marketable Skills	<ul style="list-style-type: none"> <li>• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</li> <li>• *Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.</li> <li>• *Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.</li> </ul>

<b>Outcome</b>	<b>Communicate effectively</b>
Marketable Skills	<ul style="list-style-type: none"> <li>• (3) an ability to communicate effectively with a range of audiences</li> <li>• *Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> </ul>

<b>Outcome</b>	<b>Practice personal and social responsibility</b>
Marketable Skills	<ul style="list-style-type: none"> <li>• (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</li> </ul>

<b>Outcome</b>	<b>Demonstrate social, cultural, and global competence</b>
Marketable Skills	<ul style="list-style-type: none"> <li>• (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</li> </ul>

<b>Outcome</b>	<b>Prepare to engage in lifelong learning</b>
Marketable Skills	<ul style="list-style-type: none"> <li>• (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies</li> <li>• *Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.</li> </ul>

Outcome	Work collaboratively
Marketable Skills	<ul style="list-style-type: none"> <li>• (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</li> <li>• (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</li> <li>• (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</li> <li>• (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions</li> <li>• *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.</li> </ul>

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 “electrical 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