

ABET Student Outcome 2: Apply Engineering Design Responsibly 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			
	Level of Achievement: 1	Level of Achievement: 2	Level of Achievement: 3
	Below Expectations	Meets Expectations	Exceeds Expectations
Design Techniques	No design strategy. Only a single solution is presented and considered. No application of engineering or scientific principles.	Employs an existing design strategy with minimal changes. Develops a few alternate solutions; technique for choosing among them is presented. Applies some engineering and science.	Employs a design strategy with subtasks and timetable. Presents several possible solutions and finds the best. Applies engineering and science principles appropriately.
Documentation and Support	Computer tools and other resources are not used. Design is not documented; references missing.	Some use of computer tools and other resources. Documentation of design procedure is incomplete; references are minimal.	Uses computer tools and other resources effectively. Documents design procedure and includes references.
Application of Constraints: change to “Evaluation of Social and other factors” (UGC: 4/6/22)	Design does not consider economic, safety, and environmental constraints. Proposed solution is impractical or non-existent.	Some consideration of economic, safety, and environmental constraints. Practicality of solution is not demonstrated.	Design accounts for economic, safety, and environmental constraints. Design represents a practical solution (correct order of magnitude).
Originality	No evidence of original thought. Sees neither the forest nor the trees.	Follows an existing approach. Ideas are not completely integrated. Sees just the forest or just the trees.	Develops new approaches. Improves on existing solutions. Integrates ideas. Sees the forest and the trees.