

ABET Student Outcome 1: Solve Engineering Problems

an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

	Level of Achievement: 1 Below Expectations	Level of Achievement: 2 Meets Expectations	Level of Achievement: 3 Exceeds Expectations
Identify	Does not realize when major components of the problem are missing and has no coherent strategies for problem solving	Has a vision of the whole problem and has some strategies for problem solving.	Demonstrates understanding of how various pieces of the problem relate to each other and the whole
Formulate	Does not see the connection between theory and practical problem solving	Connects theoretical concepts to practical problem-solving when prompted and is beginning to integrate previous knowledge and new information.	Formulates strategies for solving problem and can relate theoretical concepts to practical problem solving
Solve	Demonstrates solution implementing simple application of one formula or equation with close analogies to class/lecture problems	Demonstrates solution with integration of diverse concepts with useful relationships and connects theoretical concepts to practical problem solving.	Demonstrates creative synthesis of solution, creates new alternatives, and relates theoretical concepts to practical problem solving