

Student Outcome: (1) an ability to apply knowledge of mathematics, science and engineering.

	Unsatisfactory 1	Developing 2	Satisfactory 3	Exemplary 4	Score
Apply of Mathematics and Science	Has conceptual problem and cannot apply math and science (<i>course specific topics</i>) to engineering problems.	Minimally understands and tries to apply math and science principles toward solving engineering problems.	Adequately understands and applies appropriate math and science principles. Handles algebra, trigonometry and calculus with minor error.	Understands and applies appropriate math and science principles. Handles algebra, trigonometry and calculus with almost no error.	
Apply of Engineering Topics	Does not recall or incorrectly applies fundamental engineering knowledge (<i>course specific topics</i>).	Tries to identify and understand problems. Solves problems with frequent errors.	Frequently identifies and understands problems. Solves problems with minor error	Always identifies and understands problems. Solves problems with almost no error.	
Average					

Student Outcome: (2) an ability to identify, formulate, and solve engineering problems.

	Unsatisfactory 1	Developing 2	Satisfactory 3	Exemplary 4	Score
Identifies Engineering Problems	No conceptual understanding of the problem.	Minimal conceptual understanding of the problem.	Basic conceptual understanding of the problem.	Complete understanding of the problem.	
Formulates Engineering Problems	Cannot describe the problem.	Simple formulation with limited errors.	A correct formulation of the problem.	A clear, correct statement indicating the nature and purpose of each factor in the formulation.	
Solves Engineering Problems	Unable to solve the problem.	Reasonable attempt at solution.	Correct solution to formulation.	Correct solution presented and interpreted in a broader context.	
Average					