

SO2: 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

PI#	Performance Indicator [Weight]	Unsatisfactory	Developing	Satisfactory	Outstanding	Score
		1 Point	2 Points	3 Points	4 points	Max.
PI1	Engineering Design Application [2]	No application of engineering and/or scientific principles	Applies engineering design principles incompletely or incorrectly to produce solutions that meet specified needs	Demonstrates rudimentary application of engineering design	Applies engineering design principles correctly to produce solutions that meet specified needs	8
PI2	Evaluate Solutions Against Requirements (with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors) [2]	Unable to determine whether an engineering design is successful	Able to identify success or failure, but unable to interpret causes of poor performance	Successfully evaluates and interprets performance and uses the results for decision-making without considering the optimum solution	By evaluating multiple solutions, obtains a high-quality and optimum solution under the given circumstances	8
PI3	Design Drawings [2]	Drawings is unsupported by design needs	Drawings is inaccurate	Drawings is incomplete	Accurate drawings is provided by using appropriate tools	8
PI4	Documentation [1]	Incomplete documentation	Design is done, but procedures and equations are not documented or referenced	Engineering design is applied incompletely without the proper equations and without references	Supports design procedure with proper documentation and references	4
OVERALL PERFORMANCE		Unsatisfactory	Developing	Satisfactory	Outstanding	Total
POINTS REQUIRED		0-7	8-14	15-21	22-28	28