

### Design Project: Grading Rubrics for Phase I

(10%)	(5%)	(15%)	(30%)	(15%)	(15%)	(10%)
Problem Description	Design Requirements	Concepts	Proposal	Graphics Communication	Schedule	Sponsor Feedback
<p>Relevant background information that justifies solving this problem; define the design problem and team mission; discuss the potential value of your solution to your customer; list all relevant customers and their prioritized wants; list appropriate constraints that are not tradable; present and justify the life and load requirement for the problem; discuss the number of systems to be manufactured as well as any manufacturing and/or assembly issues to be considered in the design; site at least 3 different system benchmarks from multiple sources ; relevant patents are reviewed.</p>	<p>Prioritized list of specifications including cost is developed and explained that measures the requirements for the design solution. Specific targets for each specification is presented and justified.</p>	<p>Multiple unique concepts are described in the text. Descriptions include references to a sufficient number of sketches, schematic, and/or drawing to illustrate the essence of a concept. Evaluation of each concept against the design specifications is present, and the selection of the best concept is justified. Chosen concept is described in terms of all the machine elements in the system.</p>	<p>A well written proposal was developed for the sponsor that effectively described the recommended concept. A realistic cost estimate for the project was provided, along with a plan (timeline) for the remainder of the semester. The resources needed to execute and complete the project were identified.</p>	<p>Technical sketches are provided to embellish concept descriptions and understanding.</p>	<p>Timeline that illustrates the actual tasks completed thus far, and forecasts the tasks necessary to complete the project. The plan has a high probability of producing a working prototype.</p>	<p>Dialog and feedback from the customers are apparent. Sponsor "by-in" of best concept selection was achieved.</p>