

GEORGIA INSTITUTE OF TECHNOLOGY  
George W. Woodruff School of Mechanical Engineering  
ME 2110 – Creative Decisions and Design – Summer 2019

**FINAL PROJECT: CONCEPT EVALUATION  
REPORT**

The concept evaluation report is due at the beginning of your Studio Session the week of July 1st. It is worth 10% of your overall grade. This item shall be submitted to Canvas in PDF form. The purpose of this assignment is to address any misunderstandings from the previous “Problem Understanding and Planning” assignment, and convey how you and your team plan to accomplish the objectives of the final project based on a vetting of the team’s potential designs through concept generation and evaluation. This should include restatement and discussion of the problem, identification of major design challenges, customer needs, engineering specifications, functions, concept generation, detailed design, considered alternatives, and structured evaluation with an updated scheduled/plan (e.g., Gantt chart). Below are the specific requirements for the report.

**Concept evaluation report.** All reports should be uploaded to Canvas before the deadline. This report should include the following:

- Cover Page: See book for example cover page.
- Abstract: Summarize the report, including key findings and results in one paragraph.
- Introduction: Restate the problem, goal of the study and inherent design challenges associated with achieving this goal.
- Problem Understanding: Review important customer needs, engineering specifications to address these needs, tradeoffs and synergies, critical functions and concept generation. This must include the HOQ, specification sheet, function tree and morphological chart.
- Design Overview: Describe the assembled, integrated system. Present and describe the subsystems of the device. Discuss relevant engineering specifications of the final system. Discuss its initial performance.
- Concept Alternatives: Describe the alternative concepts that were developed (a minimum of 2 alternatives).
- Concept Evaluation: Describe the concept evaluation results. Make it clear why you chose your selected system. This must include the concept evaluation matrix.
- Schedule: Update your project management timeline, acknowledging any change in plans.
- Conclusions: Summarize key results, potential next steps and final thoughts.
- Appendix: Place all cited figures and tables with proper captions and in proper sequential order. Figure captions should be provided for all figures and go below the figure. Table captions for any tables are to be placed above the table. Figures and tables must be cited in sequential order in the text and all figures/tables must be cited.

Consider dividing your report into the sections listed in the outline above for clarity. The report should include a maximum of **5 pages** of text. The cover page, abstract and appendix do not contribute to this 5-page limit. Before you prepare your report, you should have read the textbook’s guidelines for using drawings and preparing reports (Chapters 9 and 10). The report should use 12-point font, 1-inch margins and 1.5 line spacing (unless otherwise specified). Use page numbers at the bottom of each page.