Senior Design Report Content Summary Form

Name (print): ___________________________________________________________ Semester/Year: ________________________

Course Department/Number: ___________________________________________ Number of Credits: ______________________

Each student should submit this form. Even if you worked with a group on your project, each member of the group must submit a separate senior design report content summary form. You should type your responses on this form using Adobe Acrobat, and signatures should be obtained electronically.

Part I – Problem Statement
Please fill this out and get it signed by your project instructor by the end of the third week of the semester.

Brief Description of the Project:

Brief Description of Communication Planned with Instructor: (weekly meetings, periodic e mail messages, etc.)

Signature of Student __________________________________________ Date ______________________

Signature of Instructor __________________________________________ Date ______________________

Part II – Project Status
Please fill this out and get it signed by your project instructor by the end of the eighth week of the semester.

Brief Description of the Status of the Project:

We agree that the project is _____ ahead of schedule _____ on schedule _____ behind schedule

Signature of Student __________________________________________ Date ______________________

Signature of Instructor __________________________________________ Date ______________________
Part III – Final Report

Compose responses to the ten questions below on separate sheets and attach them to this form. Substantial answers are expected for all questions. After the instructor’s signature has been obtained, submit the complete document to Kae-Lynn Wilson in 125 Upson Hall.

1. What are the desired function(s) of your design?
2. What constraints related to the main function(s) must your design satisfy?
3. What are the performance objectives of your design? (Give quantitative metrics as much as possible).
4. What alternative design concepts were considered?
5. What analyses were used to select among these alternative design concepts?
6. Which concepts or skills learned in your coursework were applied to the design? Projects are expected to make substantial use of MAE and related ENGRD coursework. Please provide a list with each entry providing the department and number of the course, plus a brief description of the particular concept or skill used.
7. What format did your design take? For example, is it a complete set of CAD drawings, a working prototype, a full finished product, a system configuration, a process map, or something else?
8. Evaluate your design, relative to its function(s), constraints, and objectives. How well did your design meet each of the performance objectives? How well does your design compare to other, existing solutions to the problem?
9. What impact do you see your design, if implemented, having upon public health, safety, and human welfare, as well as upon current global, cultural, social, environmental, and economic concerns?
10. Describe each student’s role in the design project, if it was a group project.

Signature of Student ________________________________ Date ____________________

Design Instructors: By signing below, you agree that you have reviewed this student’s senior design report and attest to the design focus of the project.

Signature of Instructor ________________________________ Date ____________________

The Mechanical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org. ABET requires that each student’s education culminate in a major design experience based upon the knowledge and skills acquired in course work, which incorporates appropriate engineering standards and multiple realistic constraints. Completion of this form ensures that the student’s design project has met these requirements and those of the Sibley School.

Submit this form, with attachment, to Kae-Lynn Wilson – 125 Upson Hall.
This document is required for graduation.
One of the purposes of the senior design project is to address Outcome 2 and its associated performance indicators:

**Outcome 2:** students have the 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 1: Students identify objectives and constraints of an engineering design problem.
PI 2: Students apply engineering design principles to develop and evaluate possible solutions that meet specified needs.
PI 3: Students consider the impact of their design solution on public health, safety, and welfare as well as relevant global, cultural, social, environmental, and economic factors.

In the 10 item summary, the primary correspondence is as follows:
- Items #1, #4, #5, #6, and #8: correspond to PI 1,
- Items #2 and #3: Correspond to PI 2,
- Item #9: Corresponds to PI 3

Rate each item with the following scale: 1 = emerging, 2 = progressing, 3 = proficient, 4 = exemplary. Please use this form to help you in your assessment of each report. Please keep this for your records.

| Item #1 Desired functions. | Score _______ |
| Item #2 Constraints. | Score _______ |
| Item #3 Performance objectives. | Score _______ |
| Item #4 Alternative design concepts. | Score _______ |
| Item #5 Selecting among designs. | Score _______ |
| Item #6 Related coursework. | Score _______ |
| Item #8 Design evaluation. | Score _______ |
| Item #9 Global impact. | Score _______ |