ELECOMP Capstone Design Program
Major Progress Report MPR#1 Format: Fall 2024

(Send TD/TDs an e-copy of MPR#1 and copy Dr. Sunak, as well as Consulting Technical Directors, on Sunday, October 20th; 8-9pm.)

Subject Line in email: ELECOMP Capstone: MPR#1: "Team Name: Brief Title")

Cover page (Use Color Template provided on the website)

Table of Contents (with page numbers)

    Project Summary
    Project Motivation
    Anticipated Best Outcome of the Project by 04/14/25
    Risks to Best Anticipated Outcome (Summary; details in Appendix A)
    Implications of Best Outcome for Company and Economic Impact
    Functional Specifications of Final Deliverable Product
    Block Diagrams (or other types of UML, like activity diagrams) Project Current Status

Major Milestones until 12/10/24:
      (Bullet-form: Estimated Timeline & Confidence Level for completion)

Major Milestones Anticipated from 2nd January to 14th April 2025
      (Bullet-form)

Summary of All My Technical Responsibilities, by "Designer 1 Name"

Summary of My Technical Deficiencies & Plan to overcome them, by "Designer 1 Name"

My Individual Technical Contributions to-date, by "Designer 1 Name"
  (restrict these contributions to 1 page per designer; bullet form, with page numbers for FULL details, in the Section below on "Details of Results and Discussion." Include details of any special efforts made, above and beyond the normal requirements.)

"Designer 1 Name": My Planned Technical Tasks for Tuesday 10/22/24; and during the Next Week. You can show the current tasks you have been assigned in your Program Management tool and/or provide a bulleted list.

AI Acceptable Use for this Project
  Reiterate the permitted uses approved by your TD(s)
  List all the ways that you've used AI on the project to date (if permitted) or attest that no AI has been used (if not allowed).

Team Project Management Summary
  Tool used (e.g. Jira, Trello, MS Project, Other)
  Approach (e.g. Agile [Sprint/Kanban], Waterfall)
  Screenshot of tool showing entire project, e.g. all items (done, in progress, and planned)
  Tasks completed to date (Agile [Completed Sprints], Waterfall [Closed Items])
  Current Tasks in Progress (Agile [current sprint], Waterfall [current stage])
  Defined Future Tasks (Agile [stories in backlog], Waterfall [next stage])

Details of Results and Discussion
  (choose appropriate headings; discuss with your TDs; make sure you give them ALL the details which are essential)

References
Appendices

Appendix A: Risk Tracking Template, with full details:
https://web.uri.edu/elecomp-capstone/files/RiskTemplate.pdf

Appendix B: ABET Outcomes 1-5: Details are on the website. You will be providing more details in MPR#2 and MPR#3. Initial thoughts, and discussion, must be provided in this MPR#1

Final evaluations for ABET Outcomes 2 and 4.
These 4 Outcomes are Engineering related and covered by ALL teams in the MPRs.
1. **Identifying Opportunities (Project Motivation)**
2. **Developing Requirements (Functional Specifications in the ABO)**
3. **Making Design Trade-offs**
4. **Risk Evaluation to achieve the ABO**

These 7 Outcomes are non-Engineering related and must be discussed by ALL teams.
5. **Economic Implications and Impact**
6. **Local & Global Implications and Impact**
7. **Safety Considerations (health and welfare)** 8. **Environmental Implications and Impact**
9. **Ethical Implications and Impact.**
10. **Cultural Implications and Impact**
11. **Social & Societal Implications and Impact**

COMPLETION *Final evaluations for ABET Outcomes 2 and 4.*

These 4 Aspects are Engineering related and are covered by ALL teams in the MPR#1 above.

1. **Identifying Opportunities (Project Motivation)**

   (copy and paste from MPR#1 above)

2. **Developing Requirements (Functional Specifications in the ABO)**

   (copy and paste from MPR#1 above)

3. **Making Design Trade-offs**

   (copy and paste from MPR#1 above)

4. **Risk Evaluation to achieve the ABO**

   (copy and paste from MPR#1 above)

These 7 Aspects are non-Engineering related and MUST be discussed by ALL teams in this Appendix. These must be updated in MPR#2

5. **Economic Implications and Impact** *(copy & paste from MPR#1; and/or Discuss further with a paragraph. If* not *applicable to your project, you must justify* why*, with a paragraph)*

6. **Local & Global Implications and Impact** *(copy & paste from MPR#1; and/or Discuss further with a paragraph. If* not *applicable to your project, you must justify* why*, with a paragraph)*

7. **Safety Considerations (health and welfare)** *(copy & paste from MPR#1; and/or Discuss further with a paragraph. If* not *applicable to your project, you must justify* why*, with a paragraph)*

8. **Environmental Implications and Impact** *(copy & paste from MPR#1; and/or Discuss further with a paragraph. If* not *applicable to your project, you must justify* why*, with a paragraph)*

9. **Ethical Implications and Impact.** *(copy & paste from MPR12; and/or Discuss further with a paragraph. If* not *applicable to your project, you must justify* why*, with a paragraph)*

10. **Cultural Implications and Impact.** *(copy & paste from MPR#1; and/or Discuss further with a*

   paragraph. If not *applicable to your project, you must justify* why*, with a paragraph)*

11. **Social & Societal Implications and Impact.** *(copy & paste from MPR#1; and/or Discuss further with a paragraph. If* not *applicable to your project, you must justify* why*, with a paragraph)*

ADDITIONAL EXPLANATION ON:

Risks to Best Anticipated Outcome Guidance:

Managed projects typically capture and track risks to achieving a specific or overall goal. While Capstone projects don't need the same level of formal tracking as more complex projects, a basic assessment of risks to the best anticipated outcome should be included.

By identifying risks early, expectations can be managed, and mitigation strategies can be identified, as appropriate. For Capstone, only include risks with a reasonable likelihood of occurring. Identify critical decisions that need to be made, findings that need to occur, schedule targets that need to be hit etc., that would impact the best anticipated outcome of the project.

Risk Examples:

- The team identifies two potential service providers for cloud storage. The TD asks the sponsor company IT department to choose which one works best with their existing system. Development progress on that portion of the project is put on hold until a decision is made. By the time the decision comes back there isn't enough time left to implement the cloud features.

- The team is tasked with finding the best available sensor with a certain performance and cost. After an extensive search and discussions with sensor manufacturers, it becomes clear that no existing solutions exist so the performance or cost target (or both) cannot be met.

Method of Risk Tracking and Reporting:
Add a table to your report with at least the following
   columns:
- Description of Risk
- Impact to the Project (Consequences if risk comes true)
- Likelihood of Risk Occurring
- Seriousness of Risk Occurring
- Grade of Risk (see below)
- Mitigation Strategy

Grade				
	Seriousness			
		Low	**Medium**	**High**
Likelihood	Low	D	D	C
	Medium	D	C	B
	High	C	B	A

Recommended Action by Risk Grade	
Grade	**Risk mitigation actions**
A	Immediately identify and implement actions to reduce the likelihood and seriousness as a top priority.
B	Identify actions to reduce the likelihood and seriousness to implement as the risk become more likely/serious.
C	Identify actions to implement should the risk occur.
D	Monitor the risk for changes in the future.