SLO Rough Drafts
General Overview

- Preparation for Core Capstone Defense
- Due dates presented in calendar
- Take seriously
- Full report is maximum of four pages
  - Plan for each SLO to be maximum of ½ page
- SLO can be future oriented; pay special attention to hints during lectures
- Third person
- Must show interaction with material
- Memo format
SLO #1: apply knowledge of mathematics, science, and engineering

• Describe examples of when you have applied each component
  • Mathematics
    • Calculations, equations, procedures
  • Science
    • Theories, principles, laws
  • Engineering
    • Application, iteration, process

• Prove able to use knowledge to help society
SLO # 2: design and conduct experiments as well as to interpret data

• Select an experiment you designed and conducted

• Discuss the hypothesis

• Summarize the seven steps

• Illustrate how dealt with data (statistics, outliers, validity, reliability)
SLO # 3: knowledge of contemporary issues

• Select at least two current issues
  • Note: if it has a solution, it is not contemporary
  • Issues should be separate and distinct
• Detail issues well enough to prove knowledgeable
  • Summarize and define
  • Do not discuss potential solutions
SLO # 4: broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

• Briefly acknowledge broad education (diverse classes and experiences)

• Select an engineering solution (not problem) – should be your own

• Show benefits and consequences of your own engineering solution with respect to
  • Global (affects outside of local area; not related to environment; human species as a whole)
  • Economic
  • Environmental
  • Societal (local; culture)
SLO # 5: function in a multi-disciplinary team

- Identify a multi-disciplinary team
  - Discuss what makes it multi-disciplinary

- Identify tools and resources used to make team function effectively
  - Gantt Chart, buffer deadlines, team charter, decision matrix, meeting minutes, documentation, online tools

- Prove team was successful (a simple declaration is insufficient)
SLO # 6: professional and ethical responsibility

• Acknowledge need to be professional and ethical

• Prepare example of professional responsibility
  • Proficient, practiced, skilled, legal

• Detail example of ethical conduct
  • Could have had “selfish gain”; choose ethical resolution; applied Code of Ethics in making decision (specify applicable Canons)
SLO # 7: communicate effectively

• Describe an example of when communication was successful
• Define the audience
• Detail strategies and techniques that were used
• Illustrate how you know you were successful
SLO # 8: life-long learning

- Recognition of the need for life-long learning (continuing education)
  - Describe why needed

- Engage in life-long learning
  - Activities currently used to engage
  - Plan for future activities