Guidelines for Senior Design Project Reports

Tagliatela College of Engineering

The design report is one of the most important documents that an engineering team will produce. These reports may vary widely in length depending on the scope of the project. Large, complex projects may require design reports that run for hundreds of pages. Fortunately, your senior design papers will not be that long. The basic structure of the design report is typically independent of length and an organization almost always has a standard format for such reports. These *Guidelines for Senior Design Project Reports* present the format for design reports produced by Tagliatela College of Engineering (TCoE) students. Individual design course instructors will provide targeted guidance regarding which elements need to be included in the report for a specific project.

The following table lists required components of your Design Project Report and the order in which they should appear.

Item	Report Component	Description
1	*Letter of Transmittal*	Formal letter to tell client what is included in the transmittal

7	*Problem/Project Definition*	Statement of the desired outcome or work product (is it a physical product, software product, process design, building/structure design, etc.), definition of the problem or problem statement, design constraints, related work, summary of literature review, summary of patent review.
8	*Evaluation of Alternatives*	Screening level of analysis used to focus the design team on the alternative most likely to succeed. Alternatives not selected can be described in the appendices.
9	*Design Approach*	Description of the components of the design process that the team employed in arriving at the final design.
10	*Design Narrative, Design Verification/ Implementation, Performance Evaluation, Testing, etc.*	Detailed description of the design, design verification/implementation, performance evaluation, system capabilities, documentation. Discussion of testing and verification protocols and the results of testing, whether physical testing or simulation. Details of testing and other topics are typically placed in appendices.
11	*Professional and Societal Concerns, Cost and Economic Evaluation*	Safety concerns and how they will be mitigated, potential environmental impacts of design, potential health impacts (both positive and negative), other societal impacts. Summary of the cost estimation and economic evaluation of the selected design including protocols applied to the economic analysis. Additional details may be appropriate in appendices.
12	*Discussion*	