

Document Requirements

Please review the following document requirements carefully. Each person must have approximate equal writing assignments.

Margins and Spacing

- Left justify report with 1.0-inch margins (top, bottom, and right), single space, blank line between paragraphs, indented paragraphs (optional), 12-point serif font. NOTE: adjust the left margin to 1.25" for binding. Print only one side of the page.
- The proposal must be spiral bound. Approximate cost is \$2.50 at any of the Copy Centers on campus. Use clear front and back covers. NOTE: It is suggested you take a printed copy to the Copy Center to be bound, rather than having the proposal printed there.
- Manually adjust the document spacing defaults (under paragraph settings). Document pacing should have the following settings: Before = 0. After = 0. Line spacing: single.
- Add one blank line between paragraphs.

Visuals and Lists

- Include a minimum of one figure and one table. The does not count the photo included on the Title Page. Additional figures or tables can be included if they help to illustrate the information discussed. Be sure to reference/discuss the graphics in the text, cite the graphics correctly, and provide a caption (left aligned with the graphic and 11 point font).
- Include one correctly formatted list within the report.

Citations

- Each team member must use a minimum of two articles, one of which must be scholarly. All sources used must be listed on the References page and in-text citations used appropriately in the body of the proposal.

Headings

- Use three levels of headings; first-level headings should be upper case or 14-point font. Bold, center, and begin first-level headings on a new page.
- Second-level headings should be a 12-point font, bold, left aligned, with one blank line above and one blank line below the heading.
- Third-level headings are part of a paragraph, are bolded with only the first letter of the first word in the heading capitalized (and any proper nouns), and end with a period.

Page Numbers

- Include correctly formatted page numbers on the bottom center of the page (change default for page numbers to Times New Roman). Tip: view the video in Canvas (home page>Style and Citation Guides) to view how to create and change page numbers.

Proposal Length

Proposals should be 15-19 pages in length excluding the letter of transmittal, title page, table of contents, list of figures and tables, references, divider pages, appendices, and front/back cover.

Special Requirements

- The proposal must contain one formal technical definition.
- Include one metaphor or an example.
- Write using third person.

Front Matter. The following elements should be included in the front matter:

Title Page. Include:

- Proposal Title
- Name of Recipient
- Company Name
- Company Address
- Team Member Names (in alphabetical order by last name, listed vertically)
- School
- Submission Date
- Photo of Proposed Project (cited if taken from another source but not labeled as Figure 1).
- 2-4 sentence descriptive abstract that identifies the purpose of the report and an overview of main ideas presented.

Executive Summary (approximately 1/2 to 1 page). The Executive Summary is an overview of the information included in the proposal and should contain:

- The solution you propose and its benefits.
- An expected time or schedule overview.
- The projected cost.
- Your team's ability to do the project.
- A request for funding and goodwill statement.

Table of Contents (1 page). Identify page numbers for first- and second-level headings in the report. Use the appropriate table of contents format (bold first-level headings, indent second-level headings, use dot leaders to separate headings from page numbers, right align page numbers). One blank line before first-level headings. Tip: view the video in Canvas (home page>Style and Citation Guides) to view how to create a table of contents.

List of Figures and Tables (1 page). Formatted similarly to the Table of Contents, the List of Figures and Tables includes titles and page numbers for the tables and figures found in the proposal (a minimum of one table and one figure must be used in this proposal). The page number for the photo on the Title Page can be identified as Title Page instead of using a page number.

Proposal Body. The following items should be contained in the body of the proposal:

Introduction (approximately .75 - 1 page)

- Identify the purpose of the proposal.
- Refer to the source of the proposal (RFP).
- State the solution you propose and why this is important/relevant.
- Preview the main discussion points that will be covered in the proposal.
- Provide a statement as to why undertaking this proposal would be important or beneficial.

Background Information (approximately 2-3 pages)

- The content for this section will come from the articles/sources of your secondary research. This section will reflect your team's understanding of the related literature.
- Provide appropriate background information to educate your audience about your topic (general information about the topic). Remember to define key terms, processes, and acronyms.
- Provide a thorough explanation of the problem you are trying to solve (with sufficient technical definitions/explanations as needed).
- Address what caused the problem or brought about the need.
- Discuss the effects of the problem if nothing is done.

Method of Work (approximately 2-3 pages)

- Describe the mechanism or process and how it will function. This can be the description of a mechanism in operation or the description of a process (no physical mechanism involved). Refer to the Module in Canvas for Technical Definitions and Process Descriptions for an example of a process description (mechanical or conceptual).
- If applicable, present any options your team considered but determined not feasible (and why they were not feasible).
- Discuss benefits of your proposed solution to the problem. This enables your audience to clearly see how your design provides the benefits identified.
- Identifies any challenges your team foresees.

Management Plan (approximately 2-3 pages)

- **Schedule:** Divide the project into specific tasks and state the amount of time to be allotted to each task. The schedule should contain the major steps/phases necessary for accomplishing the process identified in the Methods section above. A Gantt Chart should be included in this section. Remember, a Gantt chart illustrates the schedule but does not replace an explanation of the schedule or phases to be completed.

- **Personnel:** Include a brief professional bio (one paragraph) of each team member. This assures the funding agency that your team is qualified to complete the project. In this section, refer your audience to the Appendix for resumes of team members.
- **Costs and Resources.** Identify the resources that will be needed to develop and/or implement this proposal and *estimate* the costs associated with each of these resources. You may want to access the Thomas Register through the engineering library databases to identify costs and manufacturers. Think broadly about all resources needed: staff salaries (engineers, technicians, support staff, interns), travel costs, equipment/machinery, software, and supplies.

Conclusion (approximately 1/2 page)

- Summarize the main points of your proposal and re-state your intended outcome.
- Build confidence by re-stating your team's ability to successfully complete the project.

Back Matter

The following items should be included following the body of the proposal:

References

- Use the appropriate citation format for your discipline (see Library Research module in Canvas for links to each engineering discipline's citation site). Using this format, provide correct in-text citations and a References page.

Appendix

- **Appendix A.** Include resumes of team members. These can be the resumes submitted for the technical resume assignment. For ease of adding resumes to the proposal, you do not need to adjust the left margin, add page numbers, or change the format of the resumes. If this is the only appendix in the proposal, simply label as Appendix.
- **Additional Appendices** (Appendix B, Appendix C., etc. Additional appendices are optional but may include: tables, figures, data, code, etc., too large to put in the body of the proposal.