

BYU CEEn Capstone Project Proposal Template Notes

IMPORTANT NOTES & INSTRUCTIONS: READ & REMOVE PRIOR TO SUBMITTAL

(Reference: Federal SBIR Phase I Proposal Instructions, prior Capstone Proposal Outline)

This template has been prepared to assist your team by simplifying the tasks in writing your proposal in a standardized format.

- *Notes written in “**blue and italics**” are to be removed from this document as they serve as guidelines to provide helpful information only.*
- *All items in “**black**” to be left in proposal “as is”*
- *All items in “**red**” encased in “<XXXX>” are to be filled out by your team with information pertaining to your project and team in place of the **XXXX**.*

*NOTE: Make sure you replace “<XXXX>” with your own project information and change the font color to black after entering your information. **DO NOT LEAVE INFORMATION SUCH AS YOUR TEAM NAME IN RED AND IN BETWEEN “<” and “>” IN YOUR PROPOSAL OR YOUR PROPOSAL WILL BE REJECTED***

Paper/Font size: The proposal shall be written in 12 point font on 8 ½ by 11 paper with 1” side margins. Important to maintain all spacing and text justifications as shown in section templates after these notes.

Minimum Required Sections in Proposal

(Your team can add more sections as necessary but keep it simple and concise)

- 1) ***Title (or Cover) Page** (by itself)*
- 2) ***Introduction:** Executive summary and project objectives (1 page or less, by itself) -- Concise summary of the project tasks, objectives, schedule time line and deliverables*
- 3) ***Proposed Work Plan:** Explicit and concise description of the project approach/work – Describe tasks to be performed; how, when and where the work will be conducted; and a clear description of deliverables as exit criteria (proposed conditions that signal the successful completion and customer’s acceptance of the project).*
- 4) ***Schedule:** Project time line with important milestones (i.e. weekly work schedule for each team members, team meetings and layout of project timeline)*

- 5) **Facilities, Tools, Data, and Equipment:** Concise explanation of the tools necessary to complete project tasks and purpose of tools in relation with project tasks.
- 6) **Project Budget:** Estimated number of hours and calendar timeline layout necessary to complete each task element and/or phase as listed in the project time line above
- 7) **Deliverables:** Describe the end product your team will deliver in order to satisfy project exit criteria (i.e. Final report in PowerPoint, Word, PDF etc., presentation, prototype model etc.)
- 8) **Performance Standards:** As a minimum, provide the following statement in this section of the proposal:

Team will provide the work for this Capstone project “as is” using best practices and with best effort. Our results cannot be construed as work provided by licensed professionals and cannot be used as “stamped deliverables” without first being reviewed, approved and stamped by a qualified license professional engineer.

- 9) **Statement of Qualification:** List of key personnel, outside consultants (faculty, Capstone Committee members, miscellaneous advisors etc.), related work, relevant experience, honors/awards, and publications if available – Brief and concise description of background, experience, education and organizational structure of the team that uniquely qualified for this project – including team member assignments, team collaboration plan to accomplish objectives

10) Appendices:

*Appendix A: 1 page resume for each team member
Appendix B, C, etc. as necessary*

Misc. Information

(Reference: Prior Capstone Proposal Guidelines)

Timeliness - 1 pt off per full hour late, up to 5.
Grammar/Spelling - 1 pt off per blatant error, up to 10.

Cover Page - Title, Data, Sponsor, Team Name, Team Members, Department of Civil & Environmental Engineering, Ira A. Fulton College of Engineering and Technology, Brigham Young University - 1 pt per piece of information included.

Cover Letter - brief letter of introduction that 1) states your intent to propose and 2) how you may be contact - 4 pts per piece completed.

Executive Summary (3/4 to 1 page that summarizes the contents of your proposal) - 7 points for completion, helpfulness - 3 pts max.

Team Abilities (Adjust the SOQ to make it relevant to the project) - Summary AS A TEAM of 1) relevant courses and experience, and 3) abilities to complete the work on time and in a professional manner, 4) including use of specific engineering tools/software. Include résumés. 2 pts for including résumés, 6 more points max, 2 per piece completed.

Key Personnel - 1) Identify which individuals will focus on which pieces of your potential tasks, and 2) some kind of organizational chart or visual describing how you will work together as a team. 5pts max per piece.

Project Understanding - 1) Did they address specific items mentioned in the RFP? 2) Do they repeat basic background in somewhat new terms to *demonstrate their understanding* of the project? 3) Do they mention key deliverables they may need to provide? 4) Did they articulate a *specific* approach for developing design alternatives and deliverables? 4 pts max per piece.

Formatting - Does it look professional? Consistent? Yes or no, 5 pts each.

Concise vs. Wordy, Meaningful vs. Fluffy, repetitive wording. 8 pts means concise, and accurate, and specific. 1 pt means often confusing, wordy, or vague.

Clear and professional flow of writing and style. 7 pts means that you would feel comfortable handing this in if it were your own; it is easy to read and understand; feels professional; 1 pt means it feels like it was cut-pasted, rushed, and done with little thought; hard to read; feels like a high school essay.

Video Interview (if any) - Message is clear and consistent with proposal, each member participates, professional but catches your attention. Leniency on video/audio quality will be given with a focus on the content and overall organization.

<PROJECT TITLE (all caps)>
<Project ID: CEEEn_2016CPST_0XX>

by

<Team Name>
<Name of Graduate Mentor/Project Manager>
<Name of Team Lead>
<Name of Team Member #2 / Task Lead>
<Name of Team Member #3 / Task Lead>

A Capstone project submitted to

<Name of Sponsor's Representative>
<Name of Sponsoring Organization>

Department of Civil and Environmental Engineering
Brigham Young University

<Submittal Date>

Introduction

PROJECT TITLE: <i.e. Soil Data Study for ABC Company>
PROJECT ID: <CEEn-2016CPST-0XX – replace XX with your project id #>
PROJECT SPONSOR: <i.e. City of Enoch Public Work>
TEAM NAME: <i.e. ABC Student Engineers>

<Executive summary and project objectives (total 1 page or less) -- Concise summary of the project requirements, tasks, objectives, schedule time line and deliverables>

Proposed Work Plan

<Explicit and concise description of the project approach/work – Describe tasks to be performed; how, when and where the work will be conducted; and a clear description of deliverables as exit criteria (proposed conditions that signal the successful completion and customer's acceptance of the project)>.

Schedule

<Project time line with important milestones (i.e. weekly work schedule for each team members, team meetings and layout of project timeline), customer requested meetings and status/final report time line.>

Facilities, Tools, Data and Equipment

<Concise explanation of the tools necessary to complete project tasks and purpose of tools in relation with project tasks.>

Project Budget

<Estimated number of hours and calendar timeline layout necessary to complete each task element and/or phase as listed in the project time line above>

Deliverables

<Describe the end product your team will deliver in order to satisfy project exit criteria (i.e. Final report in PowerPoint, Word, PDF etc., presentation, prototype model etc.)>

Minimum required deliverables

- Short monthly status reports documenting challenges, solutions & progress
(Note: These status reports will be sent to all sponsors and potential employers)
 - Answers to 4 questions
 - What challenges have your team encountered in your Capstone project?
 - What actions did your team decided to do to overcome these challenges?
 - Any progress in overcoming these challenges?
 - Is project on schedule?
 - Summarize the progress and current status of your Capstone Project
 - Did challenges negatively impact the progress of your project? If so, briefly describe team plan to get back on schedule
- A final report with design alternatives for the project that include economic and environmental considerations
 - If planned ahead and done properly, proposal and monthly status reports can both simplify and provide a significant portion of the information for the final report, project poster, and final presentation (Remember: Work smart). By so doing will reduce your work load at the end. (This is a common approach on how projects are done in the field)
 - i.e. Incorporate status reports in final report as project progresses to reduce work load on final report
- A poster reflecting a summary of your project to be presented to student, faculty and other interested individuals in the final undergraduate seminar
- A presentation summarizing your project to be presented to your sponsor
- Any other additional reports as proposed and agreed upon between team & sponsor
 - In most cases, there should not be any additional reports
- Note: Before the end of winter semester both a presentation to sponsors and poster session for students, faculty and other interested people will be organized.

Performance Standards

Team will provide work for this Capstone project “as is” using best practices and with best effort. Project results cannot be construed as work performed by licensed professionals and cannot be used as “stamped deliverables” without first being reviewed, approved and stamped by a qualified and relevant license professional engineer.

<The above statement is required for this proposal. Insert additional statements and information here that are pertinence to this project as specified or requested by the customer as necessary>

Statement of Qualification

<List of key personnel, outside consultants (faculty, Capstone Committee members, miscellaneous advisors etc.), related work, relevant experience, honors/awards, and publications if available – Brief and concise description of background, experience, education and organizational structure of the team that uniquely qualified for this project – including team member assignments, team collaboration plan to accomplish objectives>

Appendix A

< 1 page resume for each team member and graduate student project manager with each on a new page by itself – starting next page. Add other Appendices as necessary for data, numerical results and result summary tables, software/app source code & sample software/app execution, etc. Do not paste resume on this page or any other Appendix title pages.>