CSC 450, Senior Research
Research Proposal

The purpose of a **research proposal** is to convince a funding agency or organization to support the proposed research (in the context of providing money, resources, and time), instead of other possible research projects.

In your proposal, you should attempt to convince the reader (i.e., me) that the research (1) addresses an important question/issue and is therefore *significant* or *necessary*, and (2) can successfully be carried out by the individual(s) proposing it. Note that I do not need to necessarily be convinced of both of these, but you will be evaluated by your attempt at this.

If you are working in a group, you should submit a single proposal, and your proposal should describe how the work will be divided between team members and separately address each person's qualifications for the work.

The proposal must be submitted through Blackboard before the due date to receive credit.

Your proposal should contain the following sections: Abstract, Background and Significance, Methodology, Statement of Qualification, Expected Outcomes, and Bibliography. Your proposal will be evaluated using the rubric on the following page and will be graded out of 100 points.

Note for rubric on following page:

[1]Objective: your object will be to develop a new method, algorithm, or tool, or to answer a specific question (e.g., to determine if Method 1 is faster than Method 2).

[2]Methodology: If you are working in a team, clearly state how the work will be divided between team members (you are free to change this later on, but your proposal should indicate that you have thought ahead about how the work will be split up). The methodology describes how you will answer your research question, or how you will develop the proposed method or tool.

Component	Points	Poor (D-F range)	Average (C range)	Excellent (A range)
Abstract	10	There is no abstract or the abstract exceeds the word limit.	The description is a little unclear and is missing either the background and significance, the objective, or the methodology.	A clear and concise description of the proposal in no more than 150 words that briefly mentions/summarizes the background and significance of the work, the objective, and the methodology
Background / Significance	15	One or both of the sections are missing	The section is not written clearly or is much too technical in nature.	A clear and concise description of the significance and background relevant to the project. These should be relatively non-technical and accessible to any individual with a basic background in computer science. The objective is clearly stated.[1]
Methodology	15	One of the sections is missing	The methodology is not clear or is not complete. A timeline is provided but is not comprehensive.	The methodology that will be used to carry out the project is clearly provided, and a timeline is included. The timeline includes preparing for and giving a presentation (around the end of April) and writing the final paper (due at the beginning of May)[2].
Statement of Qualification	15	Section is missing	Very few qualifications are provided.	A clear statement is made regarding the qualifications of the applicant(s) to carry out the proposed project. If applicants are not directly qualified, then broader qualifications are discussed providing evidence that the applicant has the ability to carry out the proposed work.
Expected Outcomes	15	Section is missing	Not all expected outcomes are described. For example, there is no mention that a presentation will be given.	All expected outcomes are described, including expected findings from research, and tangible products such as a presentation and a manuscript.
Bibliography (and references)	10	Section is missing	References are cited but the proposal does not contain at least 5 research articles. Citations do not follow the correct format.	Relevant references are cited in the manuscript, at least 6 of which are *research* articles. References are cited using the correct parenthetical form (see Notes from class) and are accurately listed in a Bibliography.
Format and Organization	10	All section headings are missing	The paper follows the correct format, but a section heading is missing, or section headings are not numbered or bolded.	The paper follows the format of the example proposal, with all sections (except the abstract and bibliography) numbered from 1-4. All section headings are in bold. A footer is included that includes your last name, the course and section number, and Spring 2017.
Grammar and Style	10	Many spelling and grammatical mistakes seriously detracts from the ability to understand the proposal.	The paper contains a fair number of spelling or grammatical mistakes that detracts from the ability to understand the proposal.	The paper is well-written and contains very few, if any, spelling or grammatical mistakes.