Proposal Template

This proposal template aligns contains two options one that closely to guidelines provided by the National Science Foundation (Option #1) and a more Traditional proposal (Option #2). A Ph.D. proposal must contain the following sections and follow the format of no less than 11pt Arial font with 1" margins on all sides and be single-spaced (preferred) or double-spaced if approved by the faculty advisor. All page limits provided below are for single-spaced, if double-spaced is used then the limits will be multiplied by two. This current page should not be included in the final document.

1. Title Page (including a no plagiarism pledge signature)
2. Summary (1 page maximum)
3. Table of Contents
4. List of Abbreviations and Acronyms
5. Proposal Description (14 pages maximum)
6. Graduation Plan and Timeline (1 page limit)
7. References Cited
8. Supplementary Documentation
9. Publication and Presentation List
A dissertation proposal submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Chemical Engineering

I pledge on my honor that I have followed UMD’s Honor Code and have not plagiarised on this proposal and have cited all ideas that are not my own.

Name:___________________________ Signature:_______________________ Date:_______

Examination date: July 1, 2016
Time: 10:00 am Location: 2113 Building 90

Committee members:
Prof. Arthur Faculty, Committee Chair
Prof. Brenda Faculty
Prof. Carlos Faculty
Prof. Dmitri Faculty
Prof. Elena Faculty
Option#1 (NSF Style)

Proposal Summary

The proposal must contain a summary of the proposed project not more than one page in length. The summary consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the scientific, societal and educational broader impacts of the proposed activity.

The overview includes a description of the proposed activity that would result if the proposal were funded and a statement of objectives and methods to be employed. The statement on intellectual merit should describe the potential of the proposed activity to advance knowledge. The statement on broader impacts should describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes. The Project Summary should be written in the third person, informative to other persons working in the same or related fields, and, insofar as possible, understandable to a scientifically or technically literate lay reader.

Option#2 (Traditional)

Proposal Abstract

The abstract will consist of a summary the proposed research and will also include details of past work associated with this proposal. This should include key findings, how these relate to more general goals or objectives of the research project and a clear description of future research to complete the PhD. This should not exceed a page in length.
Table of Contents

Auto-generate from Microsoft Word if possible. The first table below indicates page limits. The second table is an auto-generated Table of Contents.

<table>
<thead>
<tr>
<th>Title</th>
<th>No. of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Summary (not to exceed 1 page)</td>
<td>1</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>1</td>
</tr>
<tr>
<td>Project Description (not to exceed 14 pages)</td>
<td>14</td>
</tr>
<tr>
<td>Graduation Plan and Timeline (not to exceed 1 page)</td>
<td>1</td>
</tr>
<tr>
<td>References Cited (no page limit)</td>
<td>5</td>
</tr>
<tr>
<td>Supplementary Documents (no page limit)</td>
<td>2</td>
</tr>
<tr>
<td>Publication and Presentation Data (no page limit)</td>
<td>2</td>
</tr>
</tbody>
</table>

Contents

Title ............................................................................................................................................ 1
Proposal Summary .................................................................................................................... 2
Table Of Contents .................................................................................................................. 3
List of Abbreviations and Acronyms ..................................................................................... 4
Project Description ................................................................................................................ 5
Graduation Plan and Timeline ............................................................................................... 6
References Cited ..................................................................................................................... 7
Supplementary Documentation ................................................................................................. 8
Publication and Presentation Data ......................................................................................... 9
List of Abbreviations and Acronyms

You may use running text or a tabular form.
Project Description

The Project Description should provide a clear statement of the work to be undertaken and must include when appropriate: preliminary work or work in progress by the student, materials and methods, objectives for the period of the proposed work and expected significance; relation to longer-term goals of the student’s project; and relation to the present state of knowledge in the field. This section will be subdivided into sections that either conform to NSF style or traditional approach in consultation with the advisor.

The Project Description should outline the general plan of work, including the broad design of activities to be undertaken, and, where appropriate, provide a clear description of experimental methods and procedures. Proposers should address what they want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified. These issues apply to both the technical aspects of the proposal and the way in which the project may make broader contributions to scientific/technological knowledge.

NSF Template (Option #1): The Project Description must contain, as a separate section, a discussion of the broader impacts of the proposed activities. Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to the project.

The Project Description may not exceed 14 pages (single-spaced). Visual materials, including charts, graphs, maps, photographs and other pictorial presentations are included in the 14-page limitation. The students are cautioned that the Project Description must be self-contained.

Examples of Figures and Captions

![Diagram of urea synthesis problem](image.png)

Figure 1. Stream and reaction extent variables for urea synthesis problem.

![Diagram showing variables in urea synthesis problem](image.png)

Figure 2. Variables in urea synthesis problem introduced as explained in the text.
Graduation Plan and Timeline

Graduation marks the culmination of graduate studies. Graduation is the completion of all graduation requirements and the conferring of a degree. Students must follow set procedures to complete a graduate degree. The proposed graduation plan and timeline should be summarized in this section and clearly demonstrate the ability to reach objectives in a reasonable time.
References Cited

References are required. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. If the document is available electronically, the website address also should be identified including access date. Use a referencing software (e.g. Endnote, Zotero) if possible.

Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal. While there is no established page limitation for the references, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 14-page Project Description.
Supplementary Documentation

All information necessary for the review of a proposal must be contained in the proposal. Supplementary documentation may not be included unless a deviation has been authorized.
Publication and Presentation Data

The following must be documented on the final page(s) of each student's written proposal:

1. A list of publications on which the student is either the first author or a co-author. Provide the full citation (title, all authors, DOI, etc.). Subdivide into:
   a. Publications that have appeared in print: specify full citation
   b. Publications that have been submitted and are under review: specify dates
   c. Publications that will be submitted after the defense: specify tentative titles, and dates

2. A list of conference presentations on which the student is either the first author or a co-author. Provide full details (title, authors, etc.). Specify speaker. Subdivide into:
   a. Presentations that have been delivered
   b. Presentations that have been scheduled (abstract accepted): specify dates
   c. Presentations for which abstracts will be submitted: specify tentative titles, and dates