



#### **Form 4: Bioengineering Undergraduate Departmental Honors Thesis Requirements**

*Below are a series of requirements developed for students enrolled in Bioengineering Undergraduate Departmental Honors Program to assist them in writing their Honors thesis. It is expected that each student will adhere to these guidelines with respect to the general format and required content of their theses. The students are also referred to the Clemson University Graduate School Thesis & Dissertation Formatting Guidelines.*

#### **General Formatting Requirements:**

##### Margins

1. All page margins must be 1 inch.
2. All content (including text, figures, tables, etc.) must fit within the margins.

##### Text

1. Text must be double spaced.
2. Text font size must be between 10 and 12 point.
3. Text font style must be either Times New Roman or Arial.
4. Text must be full justified.

##### Pagination

1. Page numbers must be in Arabic numerals ("1," "2," "3," etc.) not Roman numerals
2. Page numbers must be printed on all pages (except for the title page) in the lower right hand margin.

##### Headings and Indentation

1. A left indent on the first line of each paragraph must be used.
2. Do not add an extra double space between paragraphs.
3. First level headings (Title, abstract, table of contents, chapter titles, etc.) must be formatted in ALL CAPS and bolded.
4. Second level headings must be identified with *italics*.

##### Figure and Data Tables

1. Figure captions must be written using the same font style as the main body text using a font size of 9. Figure captions must be located below the figure and full justified.
2. Table headings must be written using the same font style as the main body text using a font size of 9. Table headings must be located above the table and centered.

**Thesis Content Requirements:**General content considerations

1. The thesis must contain the following elements in the order indicated below:
  - a. Title page
  - b. Abstract
  - c. Table of contents
  - d. List of tables, figures, forms, questionnaires, etc.
  - e. Thesis body
    - i. Introduction
    - ii. Research Objective
    - iii. Materials and Methods
    - iv. Results
    - v. Discussion
    - vi. Conclusions
  - f. References cited
  - g. Appendices

Content specific requirements

## a. Title page

The title page should contain a succinct and encompassing project title (bold type font), the authors name, the date of completion (month and year), as well as the research advisor's name.

## b. Abstract

A short synopsis (500 words or less) of the entire research project should precede the main body of the thesis. This should not merely be a summary of results; it should be all encompassing and include relevance of the research, an overview of the methods used, a summary of results as well as general conclusions that can be drawn from the research.

## c. Table of contents

The table of contents aids the reader in navigating the thesis and thus should be arranged according to the structure of the document. The table of contents must meet the following formatting requirements:

- Headings must be identical in content to those in the body of the document.
- Every entry must have a page number.
- Alignment and spacing of entries must be consistent.
- The page number for each entry must be right-justified at the right margin.
- Ellipses must be present between the entry and the page number. The ellipses MAY NOT be created with individually-typed periods.

## d. List of Tables &amp; Figures

A list of tables, figures, maps, or other similar items is required for the thesis. Items included in the appendices should also be included in the list. All lists must meet the following formatting requirements:

- Titles must be identical in content to their titles in the body of the document.
- Entries must have page numbers.
- An ellipsis must be present between the entry and the page number.

e. Thesis body

i. Introduction

The introduction of the thesis should contain information illustrating the relevance of the research performed and its significance.

ii. Research Objective

The research objective should be succinctly written to describe the overall objective(s) of the research being performed (why was the project undertaken and what were you trying to do).

iii. Materials and Methods

The materials and methods section should describe the items (consumables, permanent equipment, software, etc.) and methods (assays, testing procedures, etc.) utilized in order to complete the research project.

iv. Results

The results section should be comprised of summary data obtained from your studies which should be described in narrative (text) and graphical/tabular form.

v. Discussion

The discussion section should provide an interpretation of the results. This does not mean that you are merely reiterating your results. In this section you are explaining why you think you obtained the results you did, what they mean, how the results relate to work previously published in literature, etc.

vi. Conclusions

The conclusions section should be composed of generalized conclusions that can be drawn / inferred from your research project.

f. References cited

The format you use should for the references cited section should be the same as the major journals in your discipline. If you are not sure about which format to use, consult your research advisor. Each reference cited in the text must be identified using consecutive numbers enclosed in brackets, ex [1] or [2-4, 7]. Cited references must be listed in the order they appear in the text.

g. Appendices

An appendix presents information that is too detailed for the body text or indirectly related to the text such as tables, figures and computer programs. If there are several categories of supplementary material, more than one appendix will be necessary and will be grouped together as the "appendices." Each appendix in the appendices should have a descriptive title.