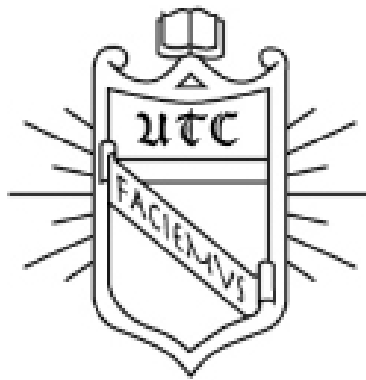


THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA

THESIS AND DISSERTATION STANDARDS



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III. SUBMITTING THE THESIS OR DISSERTATION

CHAPTER I

INTRODUCTION

A thesis or dissertation is a formal research paper that is the culmination of months and even years of diligent research effort on behalf of a graduate student. As such the work must be presented (published) using scholarly standards. The purpose of this manual, Thesis and Dissertation Standards, is to provide those standards to assist the student in organizing and presenting the results of his/her research in a scholarly manner. A student should consult with the major professor or chairperson to learn of specific department and program guidelines for the thesis or dissertation also.

The University of Tennessee at Chattanooga requires students to submit theses and dissertations to UTC Scholar (<http://scholar.utc.edu/>), the University's repository for maintaining theses and dissertations. Students also have the option to submit their thesis or dissertation to ProQuest, an entity that provides electronic publication of theses and dissertations. Both repositories will allow your research to reach a national audience. Therefore, meeting the standards as prescribed in this document, in all aspects, is necessary. Students should remember that theses and dissertations are checked by personnel in the Graduate School to ensure conformity with this manual prior to final approval and publishing.

In addition, all theses and dissertations must meet the highest standards of English grammar and punctuation. Students may be required to secure the services of a competent editor for English grammar and punctuation.

Because master's theses and doctoral dissertations reach a national audience, special attention to formatting standards, publication styles, and ethical standards are paramount. The thesis and dissertation represent the degree-granting standards of a college and of the University of Tennessee at Chattanooga, and the documents should be a source of pride for all involved. A student's advisory committee is responsible for judging the technical and professional competency, writing quality, and professional appearance of these documents, which is to say format. An editor competent in English grammar and punctuation should review the thesis or dissertation. It is the responsibility of the student to ensure that the thesis or dissertation has proper English grammar and punctuation, along with adherence to the format standards.

All theses and dissertations must adhere to certain general standards and therefore must:

1. Be prepared in accordance with the ethical standards of scholarship and publishing.
2. Be a document with a coherent theme solving a well-defined problem.
3. Provide evidence that the candidate is competent in the discipline of study and is familiar with the literature of the discipline.
4. Be written in standard English, unless the candidate's program focuses on mastery of a foreign language.

These standards are modeled after the guidelines in place at other institutions with graduate programs; therefore, the wording in this document may be similar to that used in the guidelines of other institutions.

Student Integrity

Conferral of a degree implies in part the graduate's personal integrity and ability to perform within the framework of scholarly methods. There are three areas in which graduate students should be particularly cautious: the proper acknowledgment of cited works; the use of others' copyrighted material; and proper reporting of work subject to federal compliance regulations (e.g., use of human subjects, animal care, radiation, legend drugs, recombinant DNA, or the handling of hazardous materials).

Proper Acknowledgment of Cited Works

Students must take care not to plagiarize. The UTC Graduate School catalog defines plagiarism as "The use or reproduction of materials from another person's work (e.g. publications, productions, or intellectual property) without revealing the source and/or clearly acknowledging the degree of dependency." Any material taken from another source must be fully acknowledged, and in no case should one present another person's work as one's own. Extreme caution should be exercised by students involved in collaborative research to avoid questions of plagiarism. Appropriate acknowledgment of the work of any contributors is essential. Further, if the submitted thesis or dissertation has been published previously, or has been submitted for publication, this fact should be disclosed. If in doubt, students should check with their major professor or the thesis/dissertation chairperson about such matters. Suspected plagiarism will be investigated and appropriate action taken if necessary, including removal of the thesis or dissertation in question from the library, and rescinding of degrees.

The Use of Internet Links (Embedding)

Students may use hyperlinks in their document, as long as students take steps to ensure they do not give the impression that the material linked to is their own (if it is not.) Students may also provide an address (URL) to a site without providing an active link. Students should use discretion in including links because, unlike material published in paper journals and books, the content and location of websites changes frequently.

For this and other reasons, students should not link to material that is integral to their thesis or dissertation. Instead, they should seek permission to include that material in their thesis or dissertation.

The Use of Copyrighted Material

The law governing copyright infringement is based on a principle called "fair use." If copyrighted material is used in a limited way for non-commercial purposes (e.g., scholarly

work), permission to quote usually need not be sought. The 2003 Chicago Manual of Style (2003. Chicago: University of Chicago Press) states:

For example, the [fair use doctrine] allows authors to quote from other authors' "work or to reproduce small amounts of graphic or pictorial material for purposes of review or criticism or to illustrate or buttress their own points. Authors invoking fair use should transcribe accurately and give credit to their sources. They should not quote out of context, making the author of the quoted passage seem to be saying something opposite to, or different from, what was intended (135)."

Further, "[n]o permission is required to quote from works of the United States government or works in which copyright has expired" (132). In determining whether a work is still under copyright, students should consult the U.S. Copyright Office's guidelines (see, for instance, the "Copyright Office Basics," available at <http://www.copyright.gov/circs/circ01.pdf>.)

Even when permission is not needed, students must cite the owner's works fully. If extensive material from a copyrighted work is used in such a way that the rights of the copyright owner may be violated, permission from the owner must be obtained in writing. In determining the extent of a written work that may be quoted without permission, the student should consider the proportion of the material to be quoted in relation to the substance of the entire work. According to The Chicago Manual of Style, "Use of any literary work in its entirety – a poem, an essay, a chapter of a book – is hardly ever acceptable. Quotations or graphic reproductions should not be so long that they substitute for, or diminish the value of, the copyright owner's own publication. Proportion is more important than the absolute length of a quotation: quoting five hundred words from an essay of five thousand is likely to be riskier than quoting that amount from a work of fifty thousand. But an even smaller percentage can be an infringement if it constitutes the heart of the work being quoted" (136).

The publisher usually has the authority to grant permission to quote excerpts from the copyrighted work or can refer requests to the copyright owner or designated representative. The copyright owner may charge for permission to quote. Permissions should be credited on the acknowledgments page, and the source should appear in the list of references or bibliography section.

Internet Sources

Internet and other electronic sources must be cited as fully as print materials. At the very least, such works will have a title and a date, as well as the address or URL for internet materials. The date is normally the date published or date accessed. Professional journals and organizations

(such as the APA) normally have specific suggestions for citing electronic materials. At the very least, internet sources should be cited using the digital object identifier (doi) if available.

Multi-Part Theses and Dissertations (or “Manuscript” Theses and Dissertations)

With committee approval, the primary division of a thesis/dissertation may consist of parts rather than sections or chapters. This is sometimes called a “manuscript” thesis or dissertation. The use of parts is an effective method of organization when research has been performed in two or more areas that cannot be combined into a single presentation, or to assist in maintaining consistent format, i.e., sequence of topics or divisions, for journal articles.

Students should note that a multi-part or manuscript format is only appropriate if the thesis or dissertation will contain two or more separate but related essays. Students with a single “content” chapter, conceived as a journal article, should not treat their document as a “multi-part” thesis or dissertation. Please contact the Graduate School if you intend to submit a multi-part manuscript.

Parts of a multi-part thesis or dissertation

Each part may be treated as a separate unit, with its own chapters, figures and tables, bibliography and appendix (if needed), or the bibliography and appendix may be combined at the end of the document. The student must exercise caution to ensure that formatting is consistent throughout, that all tables/figures have unique numbers, and that, in general, the organization into parts is logically arranged and consistently applied.

In all cases, the multi-part thesis or dissertation must include the following elements:

- Introduction and conclusion, providing an overview and summary of the entire project
- Table of contents for the entire document
- List of tables for the entire document
- List of figures for the entire document
- Abstract for the entire document (of 350 or fewer words for a dissertation or 150 or fewer words for a thesis)
- Separation sheet (title page) for each part
- Abstract for each part (abstracts for individual essays do not need to adhere to the requirements of length and format as dictated for the preliminary pages).

Consecutive pagination should be used throughout the document, including numbering of the required separation sheets listing the part number and title. These separation sheets must be placed immediately in front of the first page of text for each part.

Reporting of Work Subject to Compliance Regulations

Compliance with federal regulations governing the use of human subjects, animal care, radiation, legend drugs, recombinant DNA, or the handling of hazardous materials in research, is monitored by a number of federal agencies. Because of these regulations, research compliance is

another area of importance to graduate students and to the conduct of their research. The Graduate School requires verification from the student's committee that the student has complied with the appropriate approval procedures prior to initiation of the thesis or dissertation related research, if approval is relevant to the research. Forms and/or approval letters for regulated research activities must be included in the appendix of a thesis or dissertation as a means to acknowledge that proper compliance has been obtained. The Officer of Research Integrity in the university's Office of Research Integrity (<http://www.utc.edu/Administration/OfficeOfResearchIntegrity/PAM.php>) will answer questions regarding the required approvals for research projects. If approvals are needed, the Compliance Officer will provide guidance in helping students complete the appropriate forms. Compliance must be obtained before students begin research.

General Policies

Students should refer to the latest edition of the Graduate Catalog (<http://www.utc.edu/Administration/Records/Catalogs/>) for policies concerning registration for thesis/dissertation hours, restricted, classified, or proprietary research, and other requirements for completion of the graduate program.

The goal of The Graduate School, as well as the student's thesis/dissertation committee, is to ensure that a document has been produced that will properly represent and reflect well on the student, the student's committee, the department and the university.

CHAPTER II

FORMAT AND APPEARANCE

General Format

These standards endorsed by the Graduate Council are to ensure that the University of Tennessee at Chattanooga theses and dissertations will have a consistently professional and scholarly appearance. Close attention to these standards during document preparation will save time during the review process conducted by personnel in the Graduate School. The standards must be followed as presented in this publication.

The thesis or dissertation is being formatted for electronic publication through UTC Scholar and ProQuest. Because it will be viewed and read electronically, all pages must be in the proper orientation. Therefore, some tables and figures may require a landscape page orientation. When pages are oriented landscape the page number must be placed at the bottom center along the 11 inch length of the page.

Recommended Style

Degree-granting units select an acceptable style (APA, MLA, etc.). Do not confuse style with formatting; these standards refer to formatting. The degree-granting unit is responsible for ensuring that documents conform to the chosen style. If the style differs from the specific formatting established in these standards, a letter from the major advisor indicating the acceptability of the differences must be submitted to the Dean of the Graduate School for approval of the format variation before writing of the thesis or dissertation begins. Failure to gain approval of any deviation to these standards may delay review and approval of the final document. Punctuation, spelling, and general format should be accurate and consistent.

References

All students are required to use bibliography management software. The UTC Library has Endnote available for students at no cost and will provide instructions to help you get started using the software. However, you may choose a software of your preference.

FORMAT INFORMATION

Type Fonts and Print Quality

1. Times New Roman (11 or 12) or Calibri (11 or 12) pt should be used consistently throughout the document.
2. Italics or underlining may be used for non-English words and in the citation of titles.
3. Chapter numbers, chapter titles, and subheadings may be boldface.
4. Italics, boldface, or underlining printing may be used for special symbols or names, e.g., mathematical symbols, scientific names or organisms.

Line Spacing

Standard spacing should be used throughout the thesis/dissertation. Theses/dissertations are required to be double spaced with the exceptions listed below. Follow these definitions:

1. Single Space = no blank lines between text

Use single spacing:

- With quotations 3 lines or longer
- Tables exceeding ½ page
- Footnotes
- Multi-line captions
- Bibliographic entries

3. Triple Space = 2 blank lines between text

Use triple spacing:

- After titles in the preliminary pages, chapter titles on chapter opening pages, and REFERENCES on the bibliography page

2. Double Space = 1 blank line between text

Use double spacing:

- Between footnotes and bibliographic entries
- Between headings and text below
- Before and after a list (single space the list itself)

4. Quadruple Space = 3 blank lines between text

Use quadruple spacing:

- To separate tables and figures from text (insert three lines before and after)
- Between text and heading (three blank lines above or before heading)

Margins

1. Text may be left-aligned or justified and must be consistent throughout
2. The left, right, and top margins must be 1 inch except where otherwise noted. The bottom margin is 1 inch of space from the page number to the bottom of the page.
3. All paragraphs must be indented 0.5 inches.
4. Widows or orphans (lines from the beginning or end of a paragraph left dangling at either the top or bottom of a page, separated from the rest of the paragraph) are not permitted.

Pagination

1. All pages in the document are numbered, although there are a few cases in which the number does not appear on the page.
2. Ensure that the page number font is the same as the font used for the text throughout the document.
3. Small Roman numerals are used for the preliminary pages. Arrange preliminary pages in the following sequence:

Committee and University Representative Page

Title Page

Copyright Page (optional)

Abstract Page(s)

Dedication Page (optional)

Acknowledgements Page (optional)

Table of Contents

List of Tables (if applicable)

List of Figures (if applicable)

List of Abbreviations (if applicable)

List of Symbols (if applicable)

Center page numbers for all preliminary pages, remembering to set the footer at 0.8" to ensure correct placement of the page number at the bottom of the page. The Committee and University Representative Page is assigned Roman numeral "i," but the number does not appear on the page.

4. Arabic numerals are used for paginating the rest of the document, including the text and reference material. Begin numbering the pages with "1" and continue consecutively.
5. All page numbers are placed at the bottom center position with 1 inch of white space from the bottom of the numeral to the page bottom.

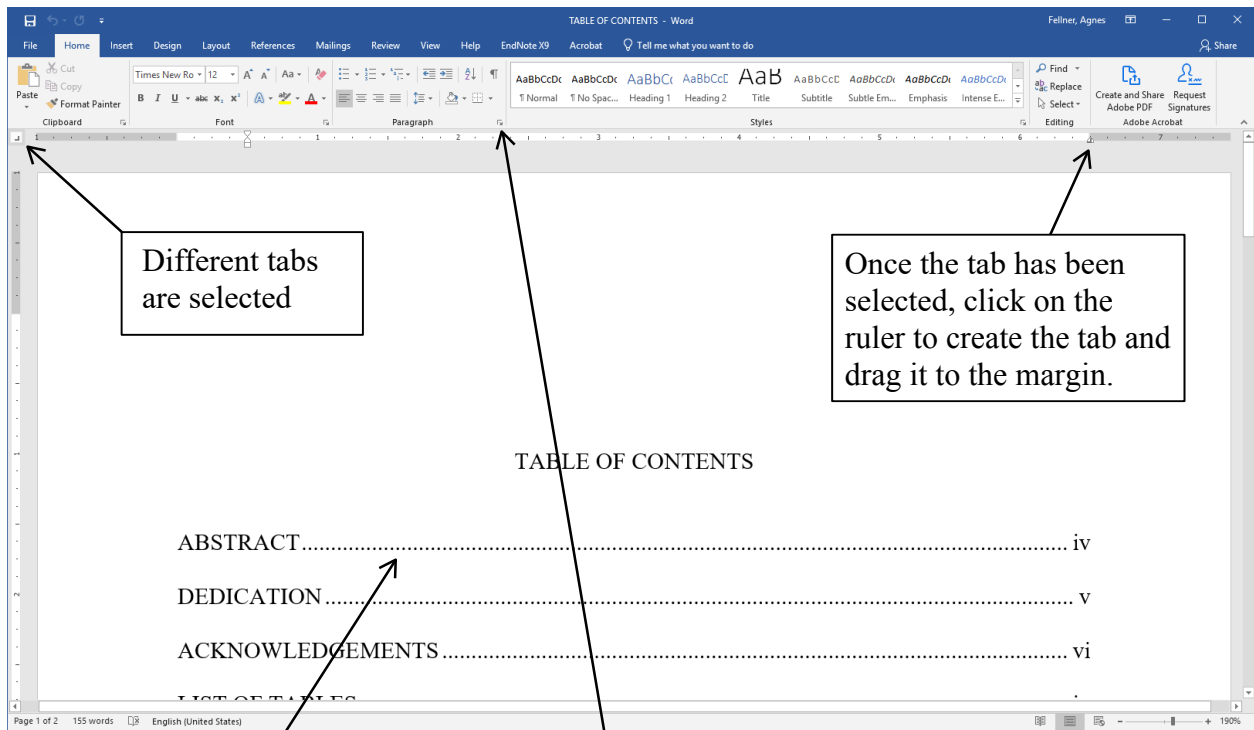
Headers and Footers

Running headers and footers are not permitted in the thesis or dissertation.

Formatting the Table of Contents

Do not use a wizard to format the Table of Contents. It will be incorrect and will be difficult to correct without basically redoing the entire section.

Setting the tab for aligning the page numbers in the Table of Content



Different tabs are selected

Once the tab has been selected, click on the ruler to create the tab and drag it to the margin.

TABLE OF CONTENTS

ABSTRACT..... iv
DEDICATION..... v
ACKNOWLEDGEMENTS..... vi
LIST OF TABLES.....

To insert the dot leader

Click where the arrow from this box is pointing or ctrl 'd'. Click on 'Tabs' in the bottom left corner of the box. From the 'Leader' options, choose the dots.

Formatting Instructions

The following pages are examples of pages with instructions embedded on the page in text boxes.

2 inches of white space between top of page and first line of title (hit "Enter" 5 times in single spaced setting; text will begin on 6th line).

Do not use boldface, italics or underlining on the title page; italics or underlining may be used for scientific names.

2.00 in

TITLE OF A THESIS THAT HAS MORE WORDS THAN
WILL FIT ON ONE LINE SHOULD BE FORMATTED
AS AN INVERTED PYRAMID

The full title is typed in all capital letters and centered horizontally on the page. If title exceeds one line, leave a single-spaced blank line between each line of the title.

4 double spaced blank lines are inserted between the last line of the title and the word "By."

By

Insert a single blank line between "By" and the candidate's name.

Candidate's Name

Name could be F. Middle Last. This is the committee member's or dean's preference.

No signature lines are provided on this page

First M. Last
Professor of Engineering
(Chair)

First M. Last
Associate Professor of Engineering
(Committee Member)

First M. Last
Assistant Professor of Engineering
(Committee Member)

First M. Last
Associate Professor of Physics
(Committee Member)

List as appropriate, e.g.,
Director of Research,
Major Professor, Major
Advisor or as Chair.

Beneath each person's name, the person's rank and role(s) in approving the document are listed. A committee member's degree designation, such as Ph.D., is not included.

This page is numbered 'i'
but there is **no** page
number on this page.

2 inches of white space between the top of the page and the first line of the title (hit "Enter" 5 times on single spaced setting; text will begin on 6th line).

TITLE OF THESIS OR DISSERTATION

Title page information should be centered vertically and horizontally. Do not use boldface, italics or underlining on the title page; italics or underlining may be used for scientific names.

The full title is typed in all capital letters. If the title exceeds one line, leave a single space between lines and format as an inverted pyramid.

Insert one blank line between "By" and your name.

By
Candidate's Name

The distance from the last line of the title to "By" and from the candidate's name to the next element should be approximately equal.

The author's full name must be used (no initials). This name must match the name on the approval and copyright pages.

A Thesis Submitted to the Faculty of the University of Tennessee at Chattanooga in Partial Fulfillment of the Requirements of the Degree of Master of Engineering

2 double spaces (4 single spaces) are inserted between the name of the discipline and the university name and location.

The University of Tennessee at Chattanooga
Chattanooga, Tennessee

1 blank line is inserted between the location and the date.

Month Year

Date is the month and year in which degree is awarded. Acceptable months are May, August, and December. There should be no comma between month and year. The word "and" is not included.

Preliminary page numbers are Roman numeral, lower case, centered at the bottom of the page with the footer set at 0.8 inch to give approximately 1.0 inch of white space. This is the second page of the manuscript, but the first one with a page number (ii).

ii

This Copyright Page is optional

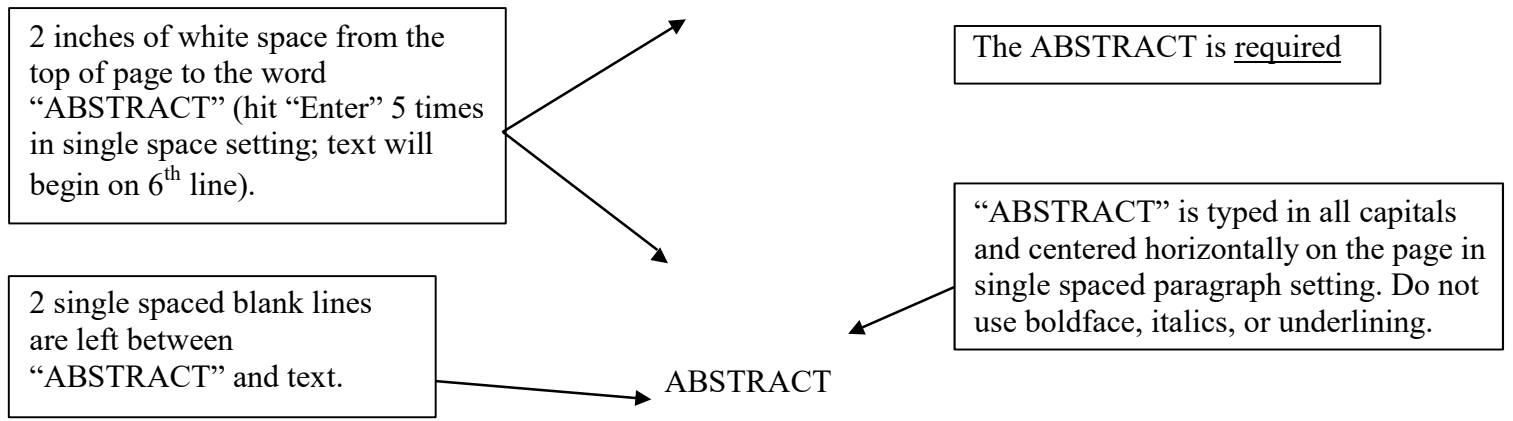
Text on this page should be centered vertically and horizontally.

Double spacing (one blank line) is used between lines of text.

Copyright © year
By First Middle Last
All Rights Reserved

The first line of text should read “Copyright © year”, the second line “By Candidate’s Full Name (no initials)”, and the third line “All Rights Reserved”.

The Copyright page, if included, is numbered with Roman numeral iii. This numeral should be centered with the Footer set at 0.8 inches to achieve approximately 1 inch of white space at the bottom of the pg.

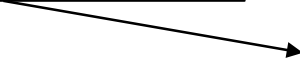


The text of the abstract is typed here. Your abstract should contain your research topic, research questions, participants, methods, results, data analysis, and conclusions. You may also include possible implications of your research and future work you see connected with your findings. Remember that “ABSTRACT” begins on the sixth line of text (hit “Enter” 5 times in the single spaced setting); it is typed in all capitals, but boldface, italics, and underlining are not permitted. Two blank lines are inserted before beginning the text of the abstract. **Double space** the text of the abstract itself and remember to indent the first word as in a normal paragraph of text. Be sure to use a consistent font throughout this page; both “ABSTRACT” and the text itself can be in Times New Roman (11 or 12) or Calibri (11 or 12). The maximum length of the abstract for a dissertation is 350 words and for a thesis is 150 words (this abstract, as a point of reference is 225 words). This page is numbered with a small Roman numeral in sequence with the previous page. Remember to center the page number and leave approximately one inch of space between the bottom of the number and the bottom of the page; this will require adjusting the Footer to 0.8 inches. The ABSTRACT is listed in the TABLE OF CONTENTS.

The Abstract page(s) is numbered with Roman numeral in sequence with the previous page. The actual page number will depend on whether the copyright page is included. This numeral should be centered with the Footer set at 0.8 inches to achieve approximately 1 inch of white space at the bottom of the page.

The DEDICATION page is optional

Two blank lines which are double spaces.

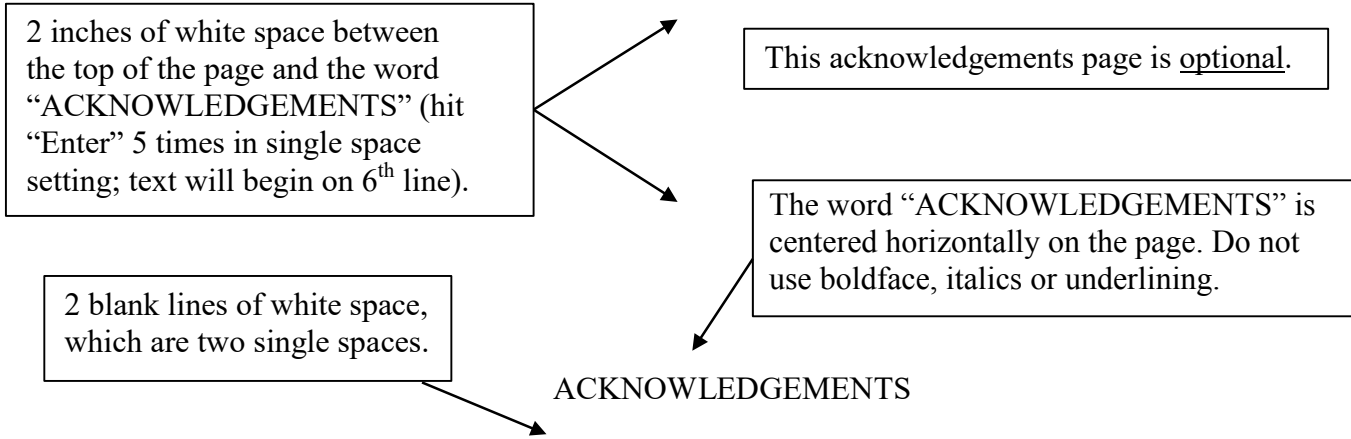


DEDICATION

Insert dedication here. Remember to leave two blank lines between “DEDICATION” and the first line of text. If included, this page is numbered with a small Roman numeral. Remember to adjust the Footer to 0.8 inches for correct placement of the page number. Double space the text of the dedication itself and remember to indent the first word as in a normal paragraph of text.

Do not use boldface, italics or underlining in the narrative.

The Dedication page, if included, should be numbered with Roman numeral in sequence with the previous page. The actual page number will depend on whether the copyright page is included. This numeral should be centered with the Footer set at 0.8 inches to achieve approximately 1 inch of white space at the bottom of the page.



Begin text here. The acknowledgements page allows participants an opportunity to express gratitude for those who advised and assisted throughout the dissertation process, such as the chair and committee members. The acknowledgments may also include the names of people who made technical contributions, notices of permission to use copyrighted materials, and so on. Remember to leave two blank lines between “ACKNOWLEDGEMENTS” and the first line of text. Text should be double spaced in Times New Roman (11 or 12) or Calibri (11 or 12). If an acknowledgements page is included, is numbered with Roman numeral in sequence with the previous page. Remember to adjust the Footer to 0.8 inches for correct placement of the page number.

The Acknowledgements page, if included, should be numbered with Roman numeral in sequence the previous page. The actual page number will depend on whether the copyright and dedication pages are included. The numeral should be 0.8 inches to achieve approximately 1 inch of white space at the bottom of the page.

The TOC is a **required** page.

2 inches of white space between the top of the page and words "TABLE OF CONTENTS" (hit "Enter" 5 times in single space setting; text will begin on 6th line).

The words "TABLE OF CONTENTS" are centered horizontally on the page. Do **not** use boldface, italics or underlining.

Two blank lines which are 2 single spaces.

One blank line

TABLE OF CONTENTS

Page numbers in the TOC must match page numbers in the document. Page numbers should be aligned with the right margin.

ABSTRACT	iv
DEDICATION.....	v
ACKNOWLEDGEMENTS.....	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS.....	xi
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Statement of the Problem.....	6
Objectives of the Study.....	8
Significance of the Study.....	9
II. LITERATURE REVIEW	10
Introduction.....	11
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Control	32
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Only the preliminary pages that are actually used are listed in the TOC.

Note that chapter titles and subheadings are indented at least three spaces.

Chapter numbers may be in Arabic or Roman numerals.

On subsequent TOC pages margin at top is 1.0 inch.

IV. RESULTS 48

 Findings 49

V. DISCUSSION AND CONCLUSION 52

 Objectives of the Study..... 53

 Summary of the Findings..... 55

 Indented Long Headings That Spill into a Second Line: Lorem ipsum dolor sit
 amet, consectetur adipiscing elit 56

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 Conclusions 59

 Recommendations for Further Study..... 64

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APPENDIX

 A. APPENDIX TITLE IN ALL CAPS 69

 B. APPENDIX TITLE IN ALL CAPS 71

 C. APPENDIX TITLE IN ALL CAPS 72

VITA 75

List the page number of the divider page for each appendix on the TOC.

Chapter title and title headings listed in the TOC must match exactly the capitalization, wording, and punctuation of the titles and headings in the document. However, do not include formatting (italics, bold, etc.).

The second line of title headings is indented 0.5 inches. Different level headings must be indented at least 3 spaces.

The TOC page is numbered using small Roman numerals.

2 inches of white space between the top of page and words "LIST OF TABLES" (hit "Enter" 5 times in single space setting; text will begin on 6th line).

Include the LIST OF TABLES page as necessary.

Type "LIST OF TABLES" in all capital letters. Do not bold, italicize or underline.

LIST OF TABLES

2 blank lines of white space, which are two single spaces.

3.1 Comparison of Important Characteristic within Sample Population24

3.2 Description of Participants by Sex, Age Range, and Degree Completion.....32

3.3 If the Title of the Table is Longer than One Line, use Hanging Indentation for the Second Line and Beyond.....41

The second line of table titles is indented 0.5 inches.

Page numbers should be aligned with the right margin, 1 inch.

Titles cannot overlap the alignment of page numbers.

Single space titles longer than one line and insert one blank line between table titles.

Table numbers, titles, and page numbers must exactly match those in the document. If additional LIST OF TABLES pages are needed, a 1 inch margin is placed at the top of the additional pages.

2 inches of white space between the top of the page and the words "LIST OF FIGURES" (hit "Enter" 5 times in single space setting; text will begin on 6th line).

Include the LIST OF FIGURES page as necessary.

"LIST OF FIGURES" must be typed in all capital letters and centered horizontally. Do not bold, italicize, or underline.

LIST OF FIGURES

2 blank lines which are 2 single spaces

2.1 This Figure Could Include a Diagram Useful to Explaining Your Research5

2.2 This Figure Could Include a Map Showing Relevant Distances between Geographical Locations of Participants in Your Study.....6

2.3 Continue Listing all Figures, Consistently Following the Numbering Scheme and Indenting Titles Which Exceed One Line 0.5 Inches.....12

Figure numbers may be numbered consecutively throughout the entire document or sequentially throughout individual chapters as depicted here.

Figure titles longer than one line are single spaced with the second line indented 0.5". Leave one blank line between Figure titles.

Page numbers should be aligned with the right margin. Figure titles must not overlap page numbers on the right margin.

Figure numbers, titles, and page numbers must exactly match those in the document. If additional LIST OF FIGURES pages are needed, a 1 inch margin is placed at the top of the page.

2 inches of white space between top of page and first line of text.

Include the LIST OF ABBREVIATIONS page as necessary.

The words "LIST OF ABBREVIATIONS" are typed in all capitals and centered horizontally on the page. Do not bold, italicize or underline.

2 blank lines which are two single spaces.

LIST OF ABBREVIATIONS

- ABC, Name follows abbreviation
- ABC, Name follows abbreviation
- ABC, Name follows abbreviation

Entries in the LIST OF ABBREVIATIONS must exactly match those in the document. The Abbreviation is listed first followed by a comma and space, then the name (as seen here)

If multiple LIST OF ABBREVIATIONS pages are necessary, subsequent pages will have a 1 inch margin at the top.

2 inches of white space between the top of the page and first line of text.

Include the LIST OF SYMBOLS page as necessary.

The words "LIST OF SYMBOLS" are typed in all capitals and centered horizontally on the page.

2 blank lines which are two single spaces

LIST OF SYMBOLS

∞ , definition of symbol

Σ , definition of symbol

α , definition of symbol

ϵ , definition of symbol

Entries in the LIST OF SYMBOLS much match exactly those in the document. List the symbol, followed by a comma and space, then the definition.

If multiple LIST OF SYMBOLS pages are necessary, subsequent pages will have a 1 inch margin at the top of the page.

Titles longer than one line should have one blank line inserted between each line of the title.

Chapters can be numbered with Arabic or Roman numerals; however, the numbering must match that used for the TOC. Titles must be in ALL CAPS.

CHAPTER I

INTRODUCTION

Two single spaced blank lines are required after the chapter title.

Begin the text of the introduction here. Remember that “CHAPTER I” should begin on the sixth line of the page using single spacing. One blank line is inserted between “CHAPTER I” and “INTRODUCTION.” Two blank lines are inserted between “INTRODUCTION” and the first line of the text (or a subheading). Either Arabic or Roman numerals may be used to number the chapters of the text, but numbering should remain consistent throughout and match the TABLE OF CONTENTS. The number is placed immediately following the word “CHAPTER” as shown above. All text on the page should be in Times New Roman (11 or 12) or Calibri (11 or 12); no boldface, italics or underlining is permitted unless using scientific names that are routinely italicized or underlined. The text of the introduction should be double spaced. An overall introduction is required even if subsequent chapters have their own introductions; further this introduction should not be simply a recapitulation of individual chapter introductions. The function of this introduction is to explain how the individual chapters work together to form the cohesive document. The introduction must be in the first chapter of the document. This page, the first of the chapter, is numbered with Arabic numeral 1 (recall that prior preliminary pages are numbered using Roman numerals). Subsequent pages will follow sequentially with Arabic numerals. To correctly insert page numbers, adjust the footer setting to 0.8 inches to allow approximately one inch of white space between the bottom of the page number and the bottom of the page. On the following pages are examples of a page with subheading, a page with example tables, and a page with a figure inserted. While these might not appear in CHAPTER I, they

Use Arabic numerals beginning with the first page of Chapter I (this is page 1). Set the footer to 0.8 inches as on all previous pages.

are included to show you the basic guidelines for using those elements in your manuscript.

Note that this is considered an “orphan.” Orphans are lines at the beginning or end of a paragraph left dangling at the top or bottom of a page, and are separated from the rest of the paragraph. These are not allowed in a thesis or dissertation.

Subheadings

The following is an example of a page within the document that contains subheadings. Times New Roman (11 or 12) or Calibri (11 or 12) should be used. The text is double spaced and margins are one inch on all sides.

Specific points to remember regarding subheadings.

- No matter what the level of a subheading, it must be included / listed in the Table of Contents.
- Subheadings in the text and the Table of Contents must match exactly, word for word and capital for capital.

Title of Heading

The first subheading in this case is flush left, no special formatting. The specific style manual used may dictate where certain level subheadings are placed and how the subheading is formatted (for example italicized or bolded). Remember to indent as with any other new paragraph in the document and insert one additional double space after the last paragraph before a sub-heading.

One additional double space is added before the subheading.

The Next Subheading Could be Centered

Insert text referring to the above subheading title here. Again, one additional double space is added between the text before the subheading and the subheading.

The Next Subheading Could be Italicized

Each level of formatting must have different format, and this must remain consistent (match) throughout the document. For example, this text refers to the 3rd level heading in this example; all other 3rd level headings throughout the document would need to be centered and italicized to show consistency. They would also need to be different from other subheading levels (for example, the 1st level in this example is left aligned and the 2nd is centered).

Subheadings may be left aligned or centered and may be **boldfaced**, *italicized*, underlined or some combination of the three; however, changing the font or the size of the font or typing in all capital letters is not permitted.

1st Level Subheading

2nd Level Subheading

When two different level subheadings appear as in the example above, there is only one double space (a single blank line of white space) between the two subheadings. Do not add an additional double space or blank line. Spacing after the paragraph and before the first subheading are formatted as shown above.

When subheadings require more than one line, the second line of the subheading should align with the beginning of the first line, and the subheading should be single spaced.

This is an example of a page with a table. The same table is shown with two different acceptable ways to format the table title. The text of this page, as all others, should be Times New Roman (11 or 12) or Calibri (11 or 12), double spaced. Smaller fonts, as well as boldface and italics may be used within the table if necessary. A table title always precedes the table. Footnotes to a table can be one to two font sizes smaller than the font size used throughout the text.

(Example of left aligned table title with hanging indent)

Table 3.1 Comparison of Average GPA for ITV Students at UT-Chattanooga Showing Standard in Class GPA

Course # and Semester	Standard Class GPA	ITV Class GPA	Difference
BMGT 511 (Fall 1993)	3.666	3.636	-.03
BMGT 512 (Fall 1993)	3.88	3.714	-.17
BACC 530 (Spring 1994)	3.60	3.50	-.1

A single-spaced blank line between table title and table

(Example of center)

2 single-spaced blank lines between centered title number and title

Table 3.1

One additional double space is added before and immediately after a table, but if the table immediately follows a subheading, no space is added before the table.

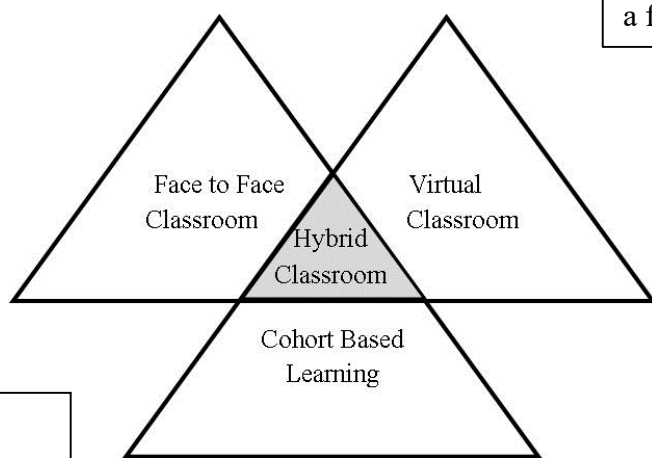
Comparison of Average GPA for ITV Students at UT-Chattanooga Showing Standard in Class GPA

Course # and Semester	Standard Class GPA	ITV Class GPA	Difference
BMGT 511 (Fall 1993)	3.666	3.636	-.03
BMGT 512 (Fall 1993)	3.88	3.714	-.17
BACC 530 (Spring 1994)	3.60	3.50	-.1

Tables may be numbered consecutively throughout the entire document (1, 2, 3, etc) or consecutively within chapters (2.1, 2.2, 2.3, etc) though the numbering must be consistent and match the entries in the LIST OF TABLES in the preliminary pages. Do not include a period after the table number and before the title of the table. Table numbers and titles appear above the tables; these may be centered or left-aligned, hanging-indent as shown above, but do not bold, italicize, underline or use all capital letters. Do not include a period at the end of the table title. Underlining or italics may be used for scientific names, such as genus and species. Tables less than ½ page long, as in these examples, may be placed on the same page as the text. Text can be included on a page with any length table. A table is never inserted within a paragraph but always follows after the paragraph in which it is mentioned (that is to say between two distinct paragraphs). One additional double space is left between the table and the text above as well as the text below. If a table starts at the top of a page, the usual one-inch top margin is maintained. The page number is centered at the bottom of the page, leaving approximately one inch of white space after the page number.

This is an example of a page with a figure. The same figure is shown with two different acceptable ways to format the figure title. The text of this page, as all others, should be Times New Roman (11 or 12) or Calibri (11 or 12), double spaced. Smaller fonts, as well as boldface and italics may be used within the figure if necessary. As opposed to table titles, a figure title is always placed just below the figure.

(Example of a left-aligned figure with a hanging-indent)



One additional double space is added before and immediately after a figure and its title.

Single space between figure and title.

Figure 2.1 The figure title follows the figure and if it is longer than one line is single spaced and formatted with a hanging-indent

Figures may be numbered consecutively throughout the entire document (1, 2, 3, etc) or consecutively within chapters (2.1, 2.2, 2.3, etc) though the numbering must be consistent and match the entries in the LIST OF FIGURES in the preliminary pages. Do not include a period after the figure number, before the title of the figure, or at the end of the figure title. Figure numbers and titles appear below the figures; these may be centered or left-aligned with a hanging-indent as shown above (and below), but do not bold, italicize, underline or use all capital letters. Underlining or italics may be used for scientific names, such as genus and species.

Figures less than ½ page long, as in these examples, may be placed on the same page as the text. Text can be included on a page with any size figure. A figure is never inserted within a paragraph but always follows after the paragraph in which it is mentioned (that is to say between two distinct paragraphs). One additional double space is left between the text above as well as below the figure. If the figure starts at the top of the page, the usual one-inch margin is maintained. The page number is centered at the bottom of the page, leaving approximately one inch of white space after the page number.

One single-spaced blank line between centered figure number and title.

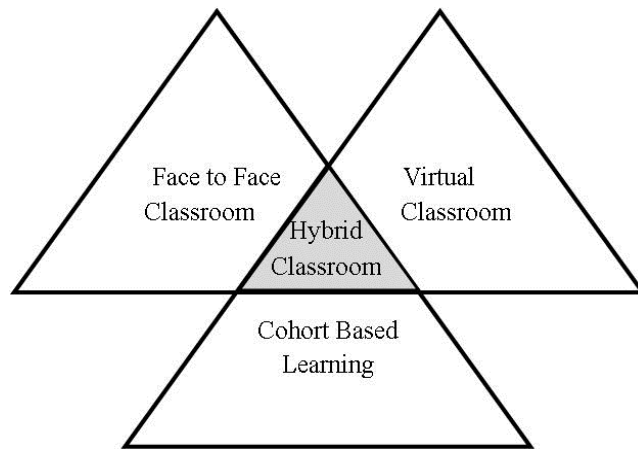


Figure 2.1

The figure title follows the figure and if it is longer than one line is single spaced and centered throughout

2 inch top margin (hit “Enter” 5 times in single space setting; text will begin on the 6th line). 1 inch left, right, and bottom margins. Subsequent pages will have 1 inch margins on all sides.

The word “REFERENCES” is typed in all capitals and centered horizontally on the page.

Insert 2 single spaced blank lines.

REFERENCES

All students are required to use bibliography management software. The UTC Library has Endnote available for students at no cost and will provide instructions to help you get started using the software. However, you may choose a software of your preference. If you used LaTeX, the bibliographic management software is BibTeX.

The style of the references is dependent upon the style guide or manual used by the program. However, entries themselves are single-spaced. Double-space between entries. Use a hanging indent for any subsequent lines after the first line if references are alphabetized (please see examples on next page).

In alphabetical order, the next entry would begin here. To correctly follow the guidelines, the line spacing should remain on the single-spaced setting. To achieve double-spacing between reference entries, include an extra return (hit the “Enter” button again).

If, however, a numbered listing of references is used all of the subsequent lines of the reference are aligned with the first letter of the first word of the reference.

See the next two pages for examples of alphabetized (in this case APA) and numbered (IEEE style) reference listings.

It may be helpful to review the style guidelines or manual on how to appropriately cite references which include a digital object identifier (doi) and those which do not.

All graduate students must submit a completed Student Verification of Standards and Bibliography Management Form (available on the UTC Graduate School website) to the Graduate School.

SPECIAL INSTRUCTIONS FOR A CREATIVE WRITING REFERENCE SECTION: Creative thesis introductions should incorporate MLA style with a final Works Cited Page including all material cited in the introduction arranged alphabetically. References are typed with double spaces for all lines within a reference; no extra space between references. (This statement was provided by the English Department Creative Writing Faculty.)

SPECIAL INSTRUCTIONS FOR ENGINEERING STUDENTS:

Most engineering graduate students use LaTeX along with BibTeX for the development of their thesis or dissertation.

REFERENCES

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Each appendix is preceded by a divider sheet identifying the appendix by letter (if more than one) and its title. The page number for the divider page is listed on the TOC.

If applicable, the first appendix should be the IRB approval letter for the research.

Right and Left margins on divider sheets are both 1 inch.

Center all text vertically and horizontally on the page.

APPENDIX A

Two single spaced blank lines are between "APPENDIX" and title. If title exceeds one line, double space and format as an inverted pyramid.

THIS IS AN EXAMPLE OF AN APPENDIX DIVIDER PAGE

FORMATTED CORRECTLY

One double space separates the lines the appendix title.

2 inch top margin (hit “Enter” 5 times in single space setting; text will begin on the 6th line). 1 inch left, right, and bottom margins. Subsequent pages will have 1 inch margins on all sides.

The VITA is a required page.

Insert 2 single spaced blank lines

VITA

Sam Jones was born in Raymond, TX, to the parents of Sly and Betty Jones. He is the second of three children, an older brother and a younger sister. He attended Van Winkle Elementary and continued to Forest Hill High School in Dallas, Texas. After graduation, attended the University of Arkansas where he became interested in fishery sciences. Sam completed an International Study Abroad Program with Dr. Ike Sanderson, which was the impetus for him to continue his education. He completed the Bachelors of Science degree in May 2004 in Wildlife and Fisheries Sciences and Molecular Biology. Sam worked for one year for the U.S. Wildlife and Fisheries Service before accepting a graduate research assistantship at the University of Tennessee at Chattanooga in the Environmental Sciences Program. Sam graduated with a Masters of Science degree in Environmental Science in May 2007. Sam is continuing his education in fishery conservation by pursuing a Ph.D. degree at Auburn University.

CHAPTER III

SUBMITTING THE THESIS OR DISSERTATION

The following is a listing of the steps required for submitting a thesis or dissertation to the Graduate School for format review and approval. Theses and dissertations are not considered complete until the document has been approved by the Graduate School; therefore, transcripts and diplomas are not released until all of the following steps are completed in the sequence provided.

Deadlines for submission of documents for review by Graduate School staff are published on the Graduate School web site and the Graduate School Academic Calendar; these deadlines cannot be waived. However, if the deadline falls on a weekend, the thesis or dissertation must be submitted no later than 4:30 p.m. on the following Monday. To meet the first submission deadline (for the first review of the document), the following verification forms or pages must be received by the Graduate School prior to the thesis or dissertation. Links are provided to each of the forms or pages.

1. A *completed Graduate Degree Examination Results* form with all required signatures indicating that the defense of the thesis or dissertation was passed and the thesis or dissertation has been accepted by the examining committee and reviewed and approved by the College Dean. (Signature of the academic dean verifies approval and acceptance by the college based on academic rigor, scholarly writing, and adherence to the UTC Graduate School *Thesis and Dissertation Standards* – <http://www.utc.edu/graduate-school/pdfs/thesis-dissertation-standards-7-18-14.pdf>)
2. All students must submit the “Verification of *Standards* and Bibliography Management Software form” (<http://www.utc.edu/graduate-school/pdfs/studentverificationstds4-2013ff.pdf>), which allows the student to indicate that the *Standards* for formatting were followed, to verify that bibliography management software was used, to provide the name of the software, and to indicate the word processing software used to produce the thesis or dissertation.
3. The thesis or dissertation is submitted electronically to the Graduate School Dean

using UTC Scholar - <http://scholar.utc.edu/> . The thesis or dissertation should not be submitted until all committee editorial comments and corrections are appropriately addressed.

4. Upon completion of the initial format review, the thesis or dissertation will be accepted or returned to the student for corrections. If the document is accepted, the dean will post a final copy of your document to UTC Scholar. The student will receive an email notification, which includes instructions for submission to ProQuest, if so desired. (see below). However, if the document is not accepted, the student must make the requested corrections and re-submit a revised electronic copy for review, using UTC Scholar. The review process continues until the document is deemed acceptable.
4. As indicated above, once the thesis or dissertation is accepted, your document will be posted to UTC Scholar by the dean and you will receive an email notification. Additionally, students have the option of submitting their research to the UMI ETD Administration site (ProQuest) at <http://www.proquest.com/products-services/dissertations/submit-a-dissertation.html>