

Electronic Thesis and Dissertation (ETD) General Formatting Requirements

Note: This guide applies to theses and standard dissertations, if you are writing a three-article dissertation, please consult our supplementary guidelines.

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Thesis and Dissertation Submission Checklist

Below is a list of elements necessary to complete your thesis or dissertation. **If you are using LaTeX, please utilize the approved templates available on the Graduate School's website.**

Please ensure that your document meets the requirements for the following sections. It is each student's responsibility to ensure that their document is formatted appropriately according to the requirements set forth in this Guide. You are also expected to ensure that your document is ADA accessible to the extent possible.

Note: some requirements in this checklist are for doctoral students only and will be highlighted as such.

Requirements

	Apply to Graduate – You must be enrolled in classes for the semester that you are planning to complete milestones like defending your thesis/ dissertation or graduate. This includes summer.
	Read and Follow ETD Formatting Guidelines - Consider formatting while working on your thesis or dissertation. Remember, your document will have to be submitted as a PDF so ensure that the formatting requirements are met as a PDF.
	Share Dissertation and iThenticate Report (DOCTORAL) – Your dissertation and iThenticate report must be shared with your committee at least three weeks prior to your scheduled defense.
	Schedule Final Defense – Complete your final defense of your thesis or dissertation <i>on or before</i> the deadlines listed in the academic calendar. Doctoral students – You will also need to submit a dissertation defense announcement to the Graduate School at least two weeks prior to the scheduled defense.
	Defend and Submit Final Defense Form - Have your committee sign the title page of the thesis or dissertation and your Master's Final Defense Report or Doctoral Final Defense Report . Make any edits to your thesis or dissertation as required by your committee
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	Forward Signed Title Page – Email your signed thesis or dissertation title page to your college liaison
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	(Ph.D STUDENTS ONLY) Complete Survey of Earned Doctorates - Ph.D. candidates must complete the Survey of Earned Doctorates .

Document Organization

General Information (this will apply to your whole thesis/dissertation)

- **File Format:** Adobe PDF required with NO compression, password protection, or digital signature. Be sure to check that your document meets all the general requirements as a PDF.
- **Name:** You are encouraged to use your full, formal name. However you choose to list your name, it must match on Title page, copyright page, abstract page, and in ProQuest
- **Font:** Embedded fonts REQUIRED for all text. See details for list of eligible fonts. Italicized font may be used for non-English words and quotations.
- **Line Spacing:** All text should be Double-space except for quotations as paragraphs, captions, items in tables, lists, graphs, charts, footnotes/endnotes, bibliographic entries, and lists in appendices
- **Pagination:** Every page following the title page should be numbered and printed on every page. Page numbers can be placed in upper right corner, bottom right corner, or bottom center. Location must be consistent throughout the document.
- **Margins:** 1" margin should be used for left, right, top, and bottom. Page numbers should be at least 3/4" from the edge of the page. Left margins should be set at 1.5" if you would like your thesis/dissertation to be bound
- **Headings:** All major headings/page titles should be consistently spaced in your document
- **Tables and Figures:** A table is any set of data arranged in a tabular format. All other items (charts, graphs, maps, photographs, drawings, etc.) are considered figures. Mathematical formulas, schema, and computer code should not be identified as figures.
- **Multimedia Files:** multimedia files including video, audio, and spreadsheets should be included as supplemental files

Elements of Thesis/Dissertation (in Order of Appearance)

This document includes both required and optional elements of a thesis/dissertation. Required sections have a **BOLD ALL CAPS** heading. Elements with a * are required if the related item is featured in your thesis/dissertation. Sample pages with examples of each element are provided after each element. To supplement the ETD General Formatting Requirements and checklist, the following sample pages provide visual examples for correct thesis or dissertation formatting. Significant features are highlighted in red. Please be sure to review the checklist in addition to reviewing the sample pages to ensure correct formatting for your thesis or dissertation.

Templates of these requirements are available [here](#).

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TITLE PAGE

- All text should be centered on this page (except the Approved By section)
- No page number on Title Page
- Follow the spacing guidelines for text (see Sample Title Page)
- Title in ALL CAPS
- Include your name
- Include the following language that reflects the correct name of your degree and major/program. You can find this info on your DegreeWorks audit :

A [document type] submitted to the faculty of
The University of North Carolina at Charlotte
in partial fulfillment of the requirements
for the degree of [Degree Title] in
[Your Major]

Charlotte

[Submission Year]

- Place the Approved by section on the bottom left portion of the page.

Include signature lines for committee members. Only the name of each individual member should be provided. Note: no signatures should be on the version submitted to ProQuest. The signed version of this page is submitted as a PDF to your College Liaison



1 inch margin

No page number should appear on the title page.

ENTER YOUR TITLE HERE



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A dissertation submitted to the faculty of
The University of North Carolina at Charlotte
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in
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Charlotte



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case of binding)

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Dr. Jane Doe

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using lowercase Roman
Numerals.

ABSTRACT PAGE

- Roman numerals should be continued from copyright page or started here if no copyright page is used
- Include center text ABSTRACT at the top of the page
- Include the following in center text:

YOUR NAME. Title Of Dissertation/Thesis

(Under the direction of DR. [COMMITTEE CHAIR])

- The text of your abstract should be double spaced – there is no word limit
-

ABSTRACT



YOUR NAME HERE. The Title of Your Dissertation or Thesis Should be in Title Caps.
(Under the direction of DR. COMMITTEE CHAIR)

Please, follow these
instructions!



Please use Times New Roman, and center and single space all of the text above this line. Your name and the name of your chair should be in all caps. The abstract itself should be double-spaced. There is no word limit for the abstract, and you can even add keywords to the metadata when you submit your work to ProQuest.

If you're unsure of how to write an abstract, there are many resources available online. Here is one way of describing the purpose of the abstract: "Abstracts present the essential elements of a longer work in a short and powerful statement. The purpose of an abstract is to provide prospective readers the opportunity to judge the relevance of the longer work to their projects. Abstracts also include the key terms found in the longer work and the purpose and methods of the research. Authors abstract various longer works, including book proposals, dissertations, and online journal articles. There are two main types of abstracts: descriptive and informative. A descriptive abstract briefly describes the longer work, while an informative abstract presents all the main arguments and important results."¹

¹ With thanks to our colleagues at The Writing Center at the University of North Carolina at Chapel Hill.
<https://writingcenter.unc.edu/tips-and-tools/abstracts/>

Acknowledgements

- Courtesy to highlight any significant help you received from any individual, the source of special materials/documents/equipment, and any outside source of financial assistance

Major headings/page titles should
be consistently spaced throughout
the document. iv

Please,
follow these
instructions!

ACKNOWLEDGMENTS



The important element in the Acknowledgments is simple courtesy in which there are usually two possible ingredients to consider. First you should acknowledge any significant help you received from any individual whether in your department or elsewhere. Specifically, you should acknowledge the source of special materials, documents, or equipment. Further, you should acknowledge the help of anyone who contributed significantly to the work or to the interpretation of the work. Second, you should acknowledge any outside source of financial assistance, such as grants, contracts, or fellowships. A word of caution is in order. Often it is wise to show the proposed wording of the Acknowledgments to the person whose help you are acknowledging. He or she might well believe that your acknowledgment is insufficient or (worse) that it is too effusive.

Dedication

- Optional page – a brief, personal statement expressing gratitude and honor to the individuals or entities that provided significant personal support or inspiration throughout the academic journey.
-

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The dedication page is optional.

DEDICATION

I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, Carlo and Marta Rossi whose words of encouragement and push for tenacity ring in my ears. My sisters Asia, Sofia and Giovanna have never left my side and are very special.

TABLE OF CONTENTS

- Every heading in the Table of Contents must appear in the Main Body
 - Long lines of text should not touch/overlap the page numbers. Wrap long items to next line
 - Formatting of chapter titles and headings must be consistent between Table of Contents and Main Body
 - The first item in the Table of Contents is usually the List of Tables or all contents following the Table of Contents in the document
 - All appendices must have a name and be listed in the Table of Contents
-

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List of Tables

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 - Long lines of text should not touch/overlap the page numbers. Wrap long items to next line
 - Tables in the appendices do not need to be listed here
 - The numbering of tables should be consecutive and not repeated (ex: 1.1., 1.2, 2.1, 2.2)
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If table/figure captions are long you may prefer to single space them. (See Table 2 vs Table 5).

List of Figures

- **REQUIRED IF YOUR DOCUMENT CONTAINS FIGURES**
 - Long lines of text should not touch/overlap the page numbers. Wrap long items to next line
 - Figures in the appendices do not need to be listed here
 - The numbering of figures should be consecutive and not repeated (ex: 1.1., 1.2, 2.1, 2.2)
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Long lines of text should not touch or overlap the page numbers; wrap long items to the next line.

Glossary or List of Abbreviations

- No corresponding page numbers is needed for the list of abbreviations
- Make sure your abbreviations and corresponding definitions are aligned properly and readable

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LIST OF ABBREVIATIONS

ABA	abscisic acid
ABRE	abscisic acid response element ANOVA analysis of variance
BHT	butylated hydroxytoluene
cDNA	complementary DNA
DS	dextran sulfate
dATP	deoxyATP
ddATP	dideoxyATP
2,4-D	2,4-dichlorophenoxyacetic acid
EcMt	early cysteine-labeled metallothionein KN Kinetin
mAb	monoclonal antibody
mRNA	messenger RNA

You do not need
corresponding page
numbers for your list of
abbreviations.

Make sure your
abbreviations and their
corresponding definitions
are aligned properly and are
readable.

Preface

- This is the last place you will use roman numerals for the page numbers in the top right corner in the document if this section is present

MAIN BODY OF DOCUMENT

- Body of text starts with page 1
 - All tables/figures/appendices must fit within the margins
 - All major sections should begin on a new page (Ex: a new page for Chapter 2 and a new page for Chapter 3)
 - Chapters or major sections must be titled and match what is listed in Table of Contents (including font formatting) (Ex: CHAPTER 1: INTRODUCTION)
 - If you choose to number chapters and subheadings, the numbering system must be used in the Table of Contents and body of document and match. (Ex. Chapter 2 in the Table of Contents must also be listed as Chapter 2 (not Chapter II) in the document)
 - If a table does not fit on one page or is split into two parts by the page break, you must include the title and full caption before the table starts. Any subsequent page on which the table continues should include the table title followed by the word continued in parenthesis. (Ex: Table 1 Title (continued))
-

CHAPTER 1: INTRODUCTION

The body of the text
starts with page 1.

Transposons are genetic elements that are mobile within a genome, therefore, they are one of the major causes of genomic variation (Lewin 1994). However, evidence is growing that transposable elements are capable of horizontal transfer. That is, they can move across genomes of different species (Prins and Zadocks 1992). Our laboratory is interested in the identification and characterization of bacterial transposon-like nucleotide sequences found in the wheat genome that may be an example of horizontal DNA transfer.

Reynolds and Kitto (1992) screened a Mexican spring wheat (*Triticum aestivum* cv. Pavon) cDNA library to identify genes expressed specifically during pollen embryogenesis. After sequencing unique clones from this library, four sequences were found that showed high homology to the bacterial transposon, Tn1721. This transposon was derived from a gram-negative bacterium and is a Tn3-like transposon found in the Tn21 subgroup (Grinstead et al. 1990). It is a unique sequence since it contains a basic transposon (Tn1722) that is capable of independent transposition. As shown in Figure 1, Tn1722 contains an open reading frame that encodes a 525 amino acid chemotactic protein (Allmeier et al. 1992). The Tn1722 portion of the transposon contains the *tnpR* and *tnpA* genes which are utilized during the genetic resolution and integration of either the major or minor sequences. The entire transposable element also include three inverted repeats which function as the insertion and excisions sites for the transposon.

Make sure all tables / figures / appendices fit within the margins, which should be at least 1 inch on all sides.

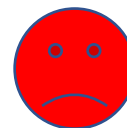
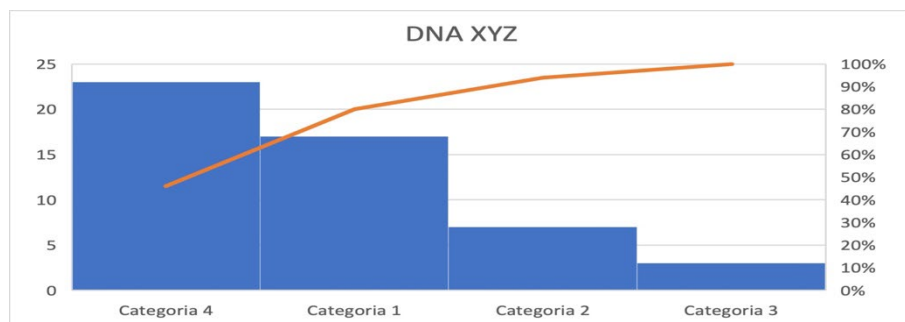
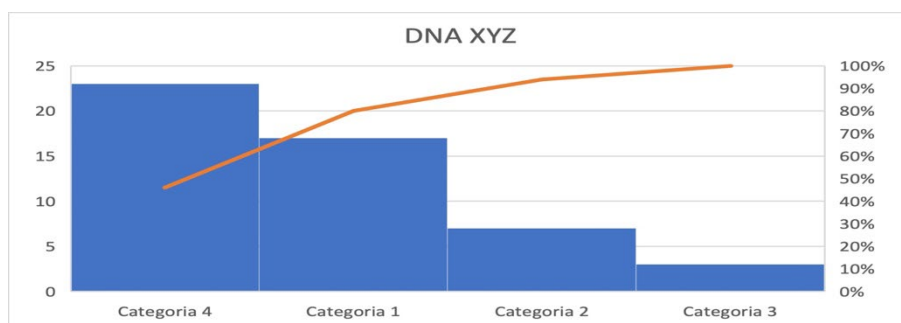
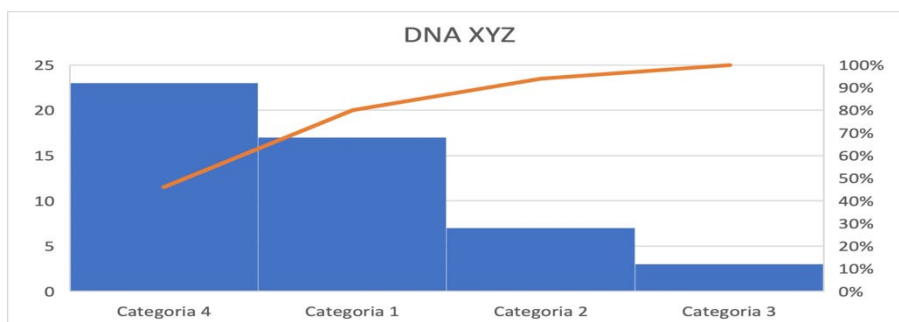


Figure extends into the left margin.



Figure extends into the right margin.



Correct! Figure inside margins.

REFERENCES

- Formatted based on your field/program's style guide
 - Reference links should have all hyperlinks removed and should not be underlined
 - If multiple reference pages are present (see 3-article dissertation), the formatting must be consistent between the reference pages
-

REFERENCES

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not be underlined.

Appendices

- **REQUIRED IF YOUR DOCUMENT CONTAINS ONE OR MORE APPENDICES**
- Each appendix must be titled and included in the Table of Contents (Appendix A, B, etc. is not an acceptable title. Appendix A: Title is acceptable)
- Each appendix must begin on a new page
- If there is only one Appendix, it can be labeled Appendix
- The numbering of tables and figures in the appendices is at your discretion (it can be continued from the numbering in the body of the document or be independent)

APPENDIX A: PCR OPTIMIZATION

The optimization of the PCR reactions were conducted on the bacterial plasmid pJOE105, which contains the entire Tn1721 transposon. This optimization required three independent experiments to determine the best parameters for each set of primers: MgCl₂ concentration, target DNA concentration, and thermal cycling parameters.

Magnesium provides the divalent cations required by the DNA polymerase to function. The MgCl₂ concentrations were optimized by titration reactions ranging from 1.55 mM to 3.55 mM final concentration in each reaction tube. The concentration of target DNA was optimized to ensure the highest possible primer specificity. DNA was diluted serially for each reaction to determine the lowest concentration of polynucleotide that still yielded visible bands on EtBr-stained agarose gels; for pJOE105 this was # 1 ng of DNA.

PCR cycle parameters were examined to reduce the so called plateau effect which results in the non-specific amplification of background products. Taking this into account, cycling parameters were set to allow efficient amplification with the lowest number of cycles. Conditions were set at 33 cycles of 1 min. at 94 C for denaturation, 1 min. at 56.5 C for annealing, and 2 min. at 72 C for synthesis, followed by 10 min. at 72 C for extension.