



**Instructions for Formatting your Thesis or Dissertation for Submission
to the College of Natural Sciences and Mathematics**

Revised April 2021

A Master's or Ph.D. student who is prepared to submit a thesis or dissertation to the university should receive approval from the College of Natural Sciences and Mathematics. Your thesis or dissertation (also referred to as the "manuscript") should be submitted to the Dean's Office only after you and your committee members have carefully reviewed it to ensure that it is in complete compliance with the requirements stated in this document. Remember, your manuscript will be at some point publically available on the Texas Digital Library. Therefore, make sure that the product reflects well on you, your advisor and committee, and this university. Treat it as though it becomes a part of your resume on which your future depends.

Your manuscript will be read by one of the NSM readers for approval by the college. Please see the document called "Items to be checked by the NSM reader" for a list of the most common items for which corrections are typically required. Also, please consult the PDF file of the Powerpoint presentation given by the NSM readers at the thesis/dissertation writing workshop.

Please consult the document called "Procedures for Submission of Theses and Dissertations" for information on the submission process to the College and to the Texas Digital Library.

A. ORDER OF PAGES

The manuscript must include the following required items in the order listed; no other order is acceptable. Only items in italics are optional.

Front matter: items 1 to 8; should be numbered with lower case roman numerals ("ii", "iii", "iv", etc...), except for title page and the optional copyright page. If you are not using one or more than one optional page, the number of the page immediately following the title page should be "ii".

USE THE TEMPLATE OF FRONT MATTER PROVIDED BY THE GRADUATE SCHOOL.

Note that the manuscript no longer contains a signature page. The signatures will be collected on a separate form (See "NSM procedures for submitting theses-dissertations").

1. Title Page - No page number should be printed, but page "i" is assigned. See detailed instructions in Section E below.

2. Copyright Page – Optional. No page number should be printed, but page "ii" is assigned.

3. Dedication or Epigraph Page – Optional.

4. Acknowledgements –Optional. Double-spaced.

5. Abstract – There should be only **one** abstract that summarizes the whole thesis/dissertation. The abstract must be double spaced and no longer than 350 words. There should not be additional abstracts at the beginning of individual chapters.

6. Table of Contents – May be single spaced. All entries should match exactly the corresponding headings and subheadings in the manuscript. The page number listed for each entry must be correct.

7. List of Tables – Table titles and page numbers must be included and correct. All tables must be incorporated in the text, and not put at the end of the manuscript.

8. List of Figures – Figure titles and page numbers must be included and correct. Do not include figure legends in the list of figures. All figures must be incorporated in the text, and not put at the end of the manuscript.

9. Text of Manuscript – Must be double spaced. The first page of the text should show the lower-case Arabic numeral 1. The manuscript's format must be consistent throughout the complete work.

10. Appendices – Optional - Supplemental information (e.g., extensive data tables, detailed methods, ancillary proofs) may be placed either before or after the references.

11. Bibliography – The title of this section must be “Bibliography”, not “References”. Note that the Table of Contents of the template from the Graduate School (page vi) lists this section as “References”. For our College, you need to title this section as “Bibliography”. The bibliography may be single-spaced or double-spaced; if single-spaced, there must be an additional space between references. Be consistent in your bibliographic format. The College preference is for only a single bibliography to appear at the end of the thesis/dissertation. However, if you prefer, you are allowed to have a bibliography at the end of each chapter instead of at the end of the thesis/dissertation. In this case, make sure to revise the Table of Contents appropriately, i.e., each chapter should have a heading “Bibliography” listed in the Table of Contents.

B. NUMBERING THE PAGES

- Each page in the manuscript, beginning with the title page, is assigned a number;
- Do not write the word “page” in front of the number;
- Although assigned, the page number is NOT printed on the title page and the optional

copyright page;

- All page numbers are centered at the bottom of the page, with the bottom (base) of the page number right at the one-inch margin;
- The following page numbering is required:
 - Front matter:
 - Use lower case Roman numerals (i, ii, iii, iv, etc.)
 - The title page is assigned page number “i”, and the copyright page is assigned page number “ii”, but the numbers are not printed on the page.
 - If one or more optional pages are not used (see section A above), the page immediately following the title page shows a printed number “ii”
 - Main body of the thesis/dissertation:
 - Use lower case Arabic numerals (1, 2, 3, 4, etc.) for the remainder of the manuscript, including the text, illustrations, appendices, and bibliography.
 - Each page must be numbered consecutively, starting with “1” on the first page of the main body.
 - Do not use letter suffixes, such as 10a or 10b.
- If a figure is too large or the caption (legend) for a figure is too long such that the entire caption does not fit on the same page as the figure, the figure number, title and caption should be placed on the previous page.

C. FORMATTING

Margins

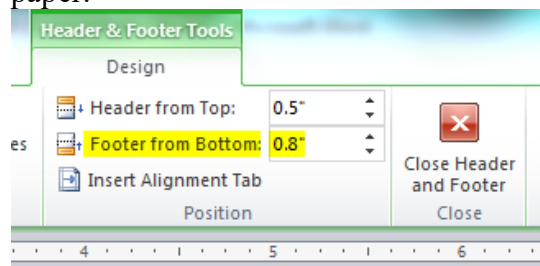
- The following margins are required:

Left: 1 inch

Right: 1 inch

Top: 1 inch

Bottom: 1 inch from the base of the page number. In WORD, set your margin at 1 inch, and your “Footer from Bottom” at 0.8 inch (see below). There might be slight variations on different printers. Print a page on your printer and double check that the bottom of the page number is at least 1 inch from the bottom edge of the sheet of paper.



- All text, captions, and figures (including charts, graphs, maps, tables, and photographs)

must be inside these margins. There are no exceptions.

Spacing

- The abstract, acknowledgments, and main body of the manuscript must be double-spaced.
- The captions must be single spaced.
- The table of contents, list of tables, and list of figures may be single-spaced or double-spaced.
- The text of the references may be single-spaced (with an additional space between references) or double-spaced.
- Be consistent in the spacing you choose between sections and sub-sections.

Fonts

- Make sure that the font size is legible. We recommend that you use the following typefaces used by NSF for formatting grant proposals, which are:
 - Arial, Courier New, or Palatino Linotype at a font size of 10 points or larger;
 - Times New Roman at a font size of 11 points of larger; or
 - Computer Modern family of fonts at a font size of 11 points or larger.
- Do not change font between sections of the manuscript.

Headings

- You are free to choose how to format your headings and sub-headings, but remain consistent throughout the manuscript in terms of font type and size, capital letters versus lower case, underlined or not, etc.
- Make certain that your table of contents agrees with the manuscript regarding page numbers and exact titles of headings;
- Avoid sections that begin on the last line of a page or sections that end on the first line of a page.

D. FIGURES AND TABLES

- All figures and tables must fit within the prescribed margins:
 - Occasionally, charts, tables, maps, graphs, photographs, or figures that are larger than the standard page might have to be used in your thesis/dissertation. If so, they should be saved as a separate document for uploading, and printed separately

for the reader.

- All figures and tables should be placed within the body of the manuscript and not at the end.
- Figures and tables in color must be submitted as such to NSM, and not printed in black and white.
- Graphs should have axes and axis labels, including units.
- **All lettering within the figure, graph or chart must be legible:** letters should be at least 1 mm tall in the printed form. Be aware that figures obtained from other sources or screen shots may have been reduced such that the lettering is no longer legible. In this case, the lettering should be eliminated or the figure relabeled.
- Scale bars should be provided, as appropriate.
- Maps should have scales and a north arrow.
- **Each figure and table must have a number and a title.**
 - The style of numbering figures and tables should be consistent throughout the manuscript. For figures, the full (“Figure”) or abbreviated (“Fig.”) word may be used, but consistently. For tables, the full word “Table” should be used;
 - The numbering of figures can be consecutive from beginning to end of the manuscript (Figure 1, Figure 2, etc.) or by chapter (for first chapter: Figure 1.1, Figure 1.2, etc.; for second chapter: Figure 2.1, Figure 2.2., etc.). A similar numbering format should be used for tables. Figures in appendices should also have captions and numbers (e.g., figure A.1, A.2, or A1.1, A2.1);
 - The number and title of a figure must be positioned below the figure;
 - The number and title of a table should be positioned a table above the table.
- **Each figure must have a caption (legend)**, which is complete enough to be self-contained (i.e., the reader should not have to go into the main text to understand the figure).
 - Captions should be single-spaced;
 - Captions should be positioned below the figure, next to the figure number and title;
 - Captions should be on the same page as the figure, unless there is not enough room on the page for the whole caption to fit; in this case, the figure number, title, and caption should be positioned on the page before the figure.
 - If the figure or caption is in landscape mode (rather than portrait), the bottom should be on the right (outside) edge of the page; however the margins remain the same and the page number remains at the bottom, as with all other pages.
- Captions or comments for tables are optional; if a table has a caption, it may be positioned above the table (next to table number and title) or below the table.

Reusing figures or any type of illustrations from the literature:

- You may reuse a figure or illustration from your own published articles, as long as you have: 1) permission to do so from the publisher (this may be automatic: see Publisher Policies on Pre-Published Content) and 2) you cite the reference in the figure legend;
- You may **NOT** reuse a figure or illustration from someone else's article unless: 1) it has been **substantively** altered or adapted in some way or 2) you have received permission for its reuse. In either case, the citation must be made clear. You should treat these issues with as much care as you would when submitting an article for consideration with a journal, since you are directly liable for any infringement of copyright. It is recommended that you contact the [Copyright Team](#) in the Libraries for assistance if you have any questions regarding copyrighted material.
- Beware of the meaning of "open access": only articles that have Creative Commons licenses attached to them allow the reproduction of figures. You should always follow the allowances of the license attached to that article. Generally, you can reuse anything in an article with a Creative Commons license for educational/non-commercial purposes without permission, so long as you cite the original author(s). It can occasionally happen, however, that a specific figure or illustration contained within an open access article has a separate license attached to it that is more restrictive.
- Articles found free online but that do not have a Creative Commons license are under full copyright protection and may not be reused or reproduced in any form without written permission from the author(s).
- Bottom line: a free online article or an "open access" article may or may not allow reuse of its contents. Make sure to check the copyright license for the specific figure you want to reuse.

E. PREPARING THE TITLE PAGE

- Per Graduate School instructions and as shown on the template, each word of the title starts with a capital letter. Only the first letter of each word should be capitalized; the rest of the word is written in lower-case letters. Exceptions are allowed for species names and gene names, so they remain scientifically correct.
- The word "thesis" should be used for the document produced by a Master student; the word "dissertation" should be used for the document produced by a PhD student;
- The acceptable departments are:
 - Biology and Biochemistry
 - Chemistry
 - Computer Science
 - Earth and Atmospheric Sciences

- Mathematics
- Physics
- The name of the college is: College of Natural Sciences and Mathematics;
- The degree should be either “Master of Science”, or “Doctor of Philosophy”;
- The following is the list of acceptable majors; note that for Biology students, “Cell and Molecular Biology” and “Ecology and Evolution” are NOT acceptable majors (they are tracks within Biology):
 - Atmospheric Sciences
 - Biochemistry
 - Biology
 - Chemistry
 - Computer Science
 - Geology
 - Geophysics
 - Mathematics
 - Physics
- Write the names of your committee members without Dr. or Professor;
- The date of the thesis/dissertation is: December for Fall graduation, May for Spring graduation, or August for Summer graduation.

F. PREPARING THE ABSTRACT

- Word limit: 350 words;
- Line spacing: double-spaced;
- An abstract should be a short version of the thesis or dissertation, and contain the following:
 - statement of the problem
 - general description of procedures and methods
 - results
 - conclusions
- An abstract should NOT contain:
 - Mathematical formulas
 - Diagrams, and other illustrative materials
 - References
- Remember that the abstract will be made public immediately, even if the thesis/dissertation has an embargo. Please keep this in mind while writing the abstract, if there is proprietary information that should not be revealed before the embargo has expired.

G. TEXT OF THE THESIS OR DISSERTATION

Style

- Remain consistent in the style you choose for your thesis or dissertation. This applies to the following:
 - Formatting of headings and sub-headings
 - Formatting of tables and illustrations (see section D above)
 - Formatting of the cited references (see section H below)
 - Formatting indentations and spacing between sections and paragraphs
 - Abbreviations: remain consistent in the use and format of your abbreviations:
 - you can use “hr” or “h” for “hour”, but remain consistent
 - you can use “Fig.” for figures, but remain consistent (do not use “Fig.” in some places, and “Figure” in others)
 - you can use “Eq.” for equations, but remain consistent

Grammar

- Edit your manuscript for proper English sentence structure and check the following:
 - Spelling: use a spell checker, but beware that it is not always accurate;
 - Punctuation: Oxford commas are not required, but if you use them, be consistent and use throughout;
 - Noun-verb agreement: you can choose to write your work using the first person singular (“I”) or plural (“we”), but remain consistent;
 - Use of articles;
 - Proper use of tense: use past tense when describing work or observations done in the past; use past or present tense when describing conclusions or interpretations; use future tense when describing future work;
 - Capitalization;
 - Hyphens: required for common words, such as “state-of-the art”, “blue-green”; not required for scientific words or words in your specialization that are normally not hyphenated;
 - Ensure that the sentences are understandable as written; keep them short.

Scientific terms

- Put a space between numbers and their units; for example: 25 m/s;
- Be consistent in the formatting of technical words, in terms of capitalization, hyphens and italics.

Hyperlinks

- In general the use of hyperlinks should be minimized in the thesis/dissertation, unless they are used for online datasets, source codes, and other resources which cannot be cited. In the bibliography, hyperlinks should be used only if there is no other way to cite the reference. They should not be used in the main text of thesis/dissertation to directly link to an article or a website. Instead, a reference should be used, and the

hyperlink given in the bibliographical entry corresponding to that reference, if there is no other way to give the citation. Do not use internal links within the thesis/dissertation to connect different sections of the document (such as text to Table of Contents, text to figures/tables, text to bibliographical entries, etc.). On rare occasions, hyperlinks have created issues with uploading the document on TDL. If this is the case, you may need to revise your document accordingly.

Previously published content

- You must give the reference of your own paper(s) on the front page of the relevant chapter(s) or at the beginning of the relevant section(s), if you are re-using any results, figures or text that you have previously published in scientific articles.

H. REFERENCES AND BIBLIOGRAPHY

- Be consistent throughout your manuscript in the style you choose to cite references in the text, and in how you list your references in the bibliography. Inconsistencies in the references and bibliography typically result in a reject by the reader, which delays your thesis/dissertation approval by NSM;
- As a rule, the format and style of the bibliography should conform to acceptable standards of scientific and scholarly writing in the discipline. At the minimum, the following information should be given:
 - For journal articles: author(s), title of the journal, volume number, inclusive pages, year of publication;
 - For books: author(s) or editor(s), title of the book, publisher, publisher city and state (country if not U.S.), year of publication;
 - For articles or chapters in book: authors of article, editors and title of book, publisher, publisher city and state (country if not U.S.), year of publication;
 - For conference proceedings: author(s), title of proceedings (may include location), volume number and inclusive pages (if available), and date of publication;
- You may choose headline or sentence style for titles in the references, but be consistent in your style.
 - In headline style titles, all first letters are capitalized except for articles (a, an, and the) and prepositions of fewer than five letters. Prepositions with five or more letters may be capitalized. For hyphenated words, generally only the first word is hyphenated.
 - In sentence style titles, only the first word of the title and proper nouns are capitalized.
- If journal abbreviations are used, make sure to use the same abbreviations consistently every time the journal name appears in the bibliography;
- Be consistent in your use of underline, and/or italics;
- Do NOT use doi numbers in the bibliography;

- Be sure and check that all references cited in the text are in the bibliography, and all references in the bibliography are cited in the text.
- The College preference is for only a single bibliography to appear at the end of the thesis/dissertation. However, if you prefer, you are allowed to have a bibliography at the end of each chapter instead of at the end of the thesis/dissertation. In this case, make sure to revise the Table of Contents appropriately, i.e., each chapter should have a heading “Bibliography” listed in the Table of Contents.

I. AVOIDING COMMON ERRORS

- Oxford commas: In a series consisting of three or more words, phrases, or clauses, separate the elements with commas. NSM does not require Oxford commas, but if you use them, remain consistent throughout the manuscript;
Example: The elements included hydrogen, oxygen, and silicon.
- In headline-style capitalization (often used in titles, table of contents, and bibliographies), do not capitalize the second part (or subsequent parts) of a hyphenated compound unless it is a proper noun or adjective.
Examples: Self-regulated Genes; Genes that are Self Regulated; A Twenty-first-century History of Science; Helmholtz-Gibbs Equation
- Use a semicolon between the clauses of compound sentences that are joined by conjunctive adverbs such as *therefore*, *hence*, *however*, *nevertheless*, *accordingly*, *thus*, and *then*. The semicolon precedes the adverb, and a comma usually follows it.
Example: The temperature was much lower than we anticipated; therefore, we did not go outside to work.
- A comma should follow the words *namely*, *that is*, *for example*, *i.e.*, and *e.g.* There must also be a punctuation mark before each of these expressions, but the kind depends on the nature and complexity of the sentence.
Examples: a) The farmer brought several kinds of animals, namely, pigs, horses, and cows, into the classroom.
b) The temperature in some areas of the world normally exceeds 100 F; for example, the average daytime temperature in Death Valley is 102 F.
- A verb should agree with its subject in person and number.
Example: The employer of engineers and scientists has to be careful about hiring practices. (The word employer is a singular subject and requires the singular verb has. Do not confuse the subject with one of its modifiers.)
- A reference using *et al.* is correctly written as Brady *et al.*, not Brady, *et al.* or Brady *et al.*

- If you punctuate mathematical or chemical equations (e.g., follow with a comma or period), punctuate them all and do it correctly. If equations are numbered, do so consistently.
- The word *data* may be used in the singular or plural, but remain consistent throughout the manuscript.
 Example: The data were inconclusive. OR The data is inconclusive.
- If you hyphenate a word, be consistent throughout the manuscript.
- Do not confuse *whose* with *who's* or *its* with *it's*.
- The word *respectively* is set off with commas, or with a comma and a period, if it comes at the end of a sentence.