



THE UNIVERSITY OF  
**TENNESSEE**  
HEALTH SCIENCE CENTER.

College of Graduate Health Sciences

**GUIDELINES FOR THE PREPARATION OF THE  
ALTERNATIVE MASTERS THESIS AND DOCTORAL DISSERTATION (AETD)**

**March 2024**

## **SECTION I**

### **ORGANIZATION OF ALTERNATIVE ELECTRONIC THESES AND DISSERTATIONS (AETDs)**

CGHS establishes broad guidelines for the types of content that must be included in a thesis or dissertation, and how the material should be organized. CGHS will confirm that the thesis/dissertation includes the material listed in this document and that the presentation and organization of material reflects the scholarly effort and professionalism required for the student's degree.

Within this framework, it is up to the graduate program and the dissertation/thesis committee to determine what constitutes a sufficient thesis or dissertation. For example, some graduate programs or major advisors expect students to publish a minimum number of manuscripts before defending. Some programs or mentors may expect students to follow specific organization or formatting schemes based on conventions within the discipline. When there are specific requirements, the graduate program and mentor are responsible for communicating these expectations early and often throughout the student's graduate education. The student is responsible for organizing and formatting the thesis/dissertation, and the mentor and committee are responsible for verifying the quality and presentation of the thesis/dissertation, in keeping with the expectations of the graduate program and the field of study.

#### **ORDER OF MATERIAL**

The thesis/dissertation must include the following pages/sections in the order listed below.

Refer to the sample pages at the end of this document for content and formatting requirements.

1. Title Page
2. Copyright Page
3. Dedication (optional)
4. Acknowledgments
5. Table of Contents
6. List of Tables

7. List of Figures
8. List of Abbreviations
9. Abstract and Key Words
10. Body of the Thesis/Dissertation
11. Literature Cited
12. Appendix (Required if there are permission releases; optional for any other appendixes)
13. Index (optional)
14. Vita (optional)

### **Title Page and Copyright Page**

Refer to the example at the end of this document for formatting and content to be included on these pages.

### **Acknowledgements**

This page is to thank those who have helped in the process of obtaining a graduate degree. Permissions to quote copyrighted material are listed here, as well as acknowledgments for grants and special funding.

### **ORGANIZING THE BODY OF THE THESIS/DISSERTATION**

The body of the thesis/dissertation may follow either a traditional organization or a manuscript organization. The organization a student uses is at the student's committee and graduate program's discretion.

#### **Traditional Organization**

This is the organization that has been historically used for theses and dissertations. The following chapters are used in the traditional organization:

- Chapter 1: Introduction
- Chapter 2: Materials and Methods
- Chapter 3: Results
- Chapter 4: Discussion

### **Manuscript Organization**

The manuscript organization allows students to organize the Methods and Materials and Results chapters of the Traditional Organization into independent chapters each comprised of a manuscript. The manuscripts do not need to be submitted or accepted for publication to be included in the thesis or dissertation. Work that is done but is not ready for publication at the time of writing the thesis or dissertation would be organized as an independent chapter using the same format as a manuscript. If a manuscript has been published, the published manuscript must be cited. Also refer to Section III on Copyright and Intellectual Property. Documentation for permission of use must be provided in the Acknowledgements for this TD style.

The thesis/dissertation should be the result of the student's original scholarly work. Unpublished manuscripts with more than one author should include a statement outlining the student's contribution to the work. For example, "AB generated the data in Figures 2,3 and 5 and wrote the Introduction (and/or Discussion and/or manuscript)."

Although each manuscript has its own introduction and discussion, the thesis/dissertation should still have Introduction and Discussion chapters comparable to these chapters in the traditional organization. The Introduction and the Discussion chapters would constitute what is usually considered the "scholarly" part of the thesis or dissertation. The Introduction should be a scholarly work that introduces the topic of the thesis or dissertation, reviews the literature of the topic, and presents the hypotheses to be tested. This section must be unique and specific to this document. The Discussion should discuss the results presented in the thesis or dissertation in the context of the field of study. This section must be a scholarly extension of the discussion sections in the manuscripts in the chapters. This section should not be just a reiteration of the discussion presented in each of the manuscript chapters.

Following are examples of body chapters:

*Manuscript Organization Example A:*

Chapter 1: Introduction – must include a scholarly review of the literature

Chapter 2\*: To be submitted manuscript, submitted manuscript, or published manuscript

Chapter 3\*: To be submitted manuscript, submitted manuscript, or published manuscript

Chapter 4\*: To be submitted manuscript, submitted manuscript, or published manuscript

Chapter 5\*: Discussion – must include scholarly discussion of results

Chapter 6\*: Summary

*Manuscript Organization Example B:*

Chapter 1: Introduction – must include a scholarly review of the literature

Chapter 2†: Materials and Methods

Chapter 3\*: To be submitted manuscript, submitted manuscript, or published manuscript

Chapter 4\*: To be submitted manuscript, submitted manuscript, or published manuscript

Chapter 5\*: To be submitted manuscript, submitted manuscript, or published manuscript

Chapter 6\*: Discussion – must include scholarly discussion of the results

Chapter 7\*: Summary

\*Number of middle chapters dependent upon the number of manuscript chapters. A chapter could also contain results that will not be published but can be presented in the thesis or dissertation.

†The addition of a Materials and Methods chapter would be at the discretion of the student, advisor, and the committee. This would provide the opportunity to provide details on the development of innovative methods or details that might not find their way into a manuscript.

## SECTION II

### FORMATTING THE THESIS/DISSERTATION

The format of the thesis/dissertation impacts readability, demonstrates the candidate's ability to adhere to the standards of their field, and reflects on their attention to excellence in their work. Therefore, the candidate is responsible for seeing that the thesis/dissertation is submitted in proper format. The highest standard of mechanical details must be achieved. With the committee's help, the candidate should edit the final draft for arrangement, sentence structure, paragraphing, punctuation, spelling, quotations, and footnotes, figures, tables, and references.

#### MARGINS

Margins should not be smaller than 0.5," nor greater than 1.5." Page margins must be consistent throughout. Figures and tables should fit within the margins of the page. We recommend the following margins:

<b>Plans for printing</b>	<b>Side Margins</b>	<b>Top and Bottom Margins</b>	<b>Footer Margin</b>
<b>No printing (electronic only)</b>	Left: 1" Right: 1"	1"	0.5"
<b>Single-sided printing</b>	Left: 1.5" Right: 1"	1"	0.5"
<b>Double-sided printing</b>	Inside: 1.5" Outside: 1"	1"	0.5"

To set margins for double-sided printing in Microsoft Word, open the Margins menu and select "Custom Margins" to open the Page Setup dialog. Under Pages/Multiple pages, select "Mirror margins." Set the desired inside and outside margins and click "OK."

#### PAGE NUMBERING

All pages are numbered consecutively, beginning with "1" for the title page. Page numbers must be centered 0.5 inches from the bottom of the page.

## **PARAGRAPH FORMATTING**

Paragraph formatting must be consistent throughout. Either block style with no indentation or indented 1/2" is acceptable. Paragraphs may be "justified" or "left-aligned".

## **SPACING**

Paragraphs in the body of the thesis/dissertation should be double-spaced. Either double or single spacing is permissible for figure legends, table entries, footnotes, and quotations of more than four lines or two or more sentences.

In the Table of Contents, List of Tables, List of Figures, and List of Literature Cited, **use single spacing within individual listings and double spacing between different listings**. Refer to the samples at the end of this document.

## **FONT SELECTION**

Choose a standard font with a professional appearance. The font size should be large enough to be easily read when printed or viewed at 100%. Arial 11 pt is recommended.

All paragraphs must be in black font. Black is recommended for all text in the thesis/dissertation, except where color is necessary for figure keys.

## **HEADINGS AND SUBHEADINGS**

Formatting of headings and subheadings must be consistent throughout.

### **Chapter Headings**

Chapter headings should be centered and double-spaced at the top of a new page. The first line of the chapter heading will give the chapter number, for example "CHAPTER I". The title of the chapter will start on the next line. Do not use terminal punctuation (i.e., periods) on chapter headings. After the chapter title, press enter twice to leave one extra blank line between the chapter heading and its body.

## **Subheadings**

Any logical system of subdivision within chapters or sections is permissible. The scheme must be consistent throughout the manuscript. Subheadings should not begin at the top of a new page unless the preceding page is filled. Subheadings should be followed by at least two lines of text on the same page. If this is not possible, the subheading should be moved to the top of the subsequent page. Formatting and/or numbering should be used to distinguish different levels of subheadings. Three examples are included here: Do not mix APA and Chicago styles. Pick one throughout your manuscript.

*Subheading Format Example 1, APA 7<sup>th</sup> edition*

### **First Level (Chapter) Heading**

#### **Second Level Heading**

#### ***Third Level Heading***

#### **Fourth Level Heading.**

#### ***Fifth Level Heading.***

*Subheading Format Example 2, Chicago style*

### **First Level (Chapter) Heading**

#### Second Level Heading

#### **Third Level Heading**

#### Fourth level heading

**Fifth level heading.** Main text continues unbolded on the same line.

*Subheading Format Example 3: numbered.*

### **First Level (Chapter) Heading**



## **1.1 SECOND LEVEL HEADING**

### **1.1.1 Third level heading**

Main text continues unbolded

## **TABLES AND FIGURES**

Figures and tables should be on their own page, either where discussed or at the end of the chapter.

For the manuscript organization, figures/tables presented as supplementary data in the manuscript can be incorporated as main figures within the thesis/dissertation chapter. All figures and tables within a chapter should be numbered consecutively. Alternatively, supplementary figures/tables that are not central to the thesis/dissertation can be included in an appendix at the end of the thesis/dissertation.

Tables, figures, and legends must fit within the appropriate page margins. When possible, the entire table/figure and corresponding legend should be placed on a single page if possible, or on a separate page if necessary.

Tables which would normally take more than one page must be divided into multiple pages or reduced by adjusting spacing and/or font size. If using a smaller font, the font must remain readable at 100%. If a figure is too large for a single page, consider separating the figure into two or more smaller figures.

## **PHOTOGRAPHIC REPRODUCTIONS/ SCANNED IMAGES**

Photographs and images presented in the thesis/dissertation must be of high quality and high resolution.

## **COLOR**

Theses/dissertations will be published electronically in full color. If you wish to print personal copies of the thesis/dissertation in black and white, make sure that the figures will remain readable when printed.

### **TABLE OF CONTENTS, LIST OF TABLES, AND LIST OF FIGURES**

Follow the format of the sample included in these instructions. This page is to be fully justified. Any titles with more than one line should be single-spaced. If a second page is required, include the appropriate heading such as “Table of Contents Continued.”

### **LIST OF REFERENCES CITED**

A thesis/dissertation must include a list of references cited in the text (List of References). Use reference software such as EndNote, Zotero, etc. Consult your mentor and committee to select a reference style appropriate to your field of research. References of more than one line should be single-spaced and double-spaced between different references. Be consistent throughout the thesis/dissertation. Put all your references for each chapter combined at the end of the thesis/dissertation (unless otherwise required by the publisher for reprinted manuscripts).

## SECTION III

### COPYRIGHT AND INTELLECTUAL PROPERTY

#### INTELLECTUAL PROPERTY POLICY

If your document is undergoing patent review, please see the Review and Approval Process (RAAP) document on Blackboard ETD Learning Portal for guidance.

#### COPYRIGHT AND COPYRIGHT PAGE

The creator of a written work automatically holds the copyright under US copyright law. No additional registration is required to secure the copyright, but a copyright notice should be included when the material is published. Therefore, the thesis/dissertation must include a copyright page, following the example at the end of this document.

The University of Tennessee's policy concerning student copyrights and dissemination of ETDs and AETDs is as follows: "A student must, as a condition of a degree award, grant royalty-free permission to the University to reproduce and publicly distribute, on a noncommercial basis, copies of the thesis or dissertation" (The University of Tennessee Board of Trustees 1984). This includes paper or electronic products. Even if an author does not 'officially' register their copyright, authors are required to add a copyright notice and symbol to their ETD.

The College of Graduate Health Sciences' Bylaws state: "All authors of an AETD should be aware of the current federal copyright laws, and it is recommended, although not required, that you register a copyright for your thesis/dissertation." Refer to the U.S. Copyright Office website (<https://copyright.gov>), the UTHSC Library's Copyright Guidance for general information on obtaining a copyright. Please also read the A Guide to Formatting Requirements for ETDs - Word in the Blackboard ETD Learning Portal (ETDLP) and search this Guide for copyright issues.

### **Wording and Placement of Copyright Notice**

Center the copyright statement vertically and horizontally, where indicated in the template. Add periods after each line. The most typical wording is:

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All other material © 2023 by Tarsha L. Harris.  
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## **Format Declaration**

In addition to the copyright statements, you must also include the following statement directly below the copyright statements:

Disclaimer: This document follows the formatting requirements of the UTHSC Alternative Thesis/Dissertation Guidelines for AETDs instead of the standard UTHSC Electronic Theses and Dissertation (ETD) Guidelines.

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You may use SafeAssign on Blackboard to ensure your thesis or dissertation is free of plagiarism. If you include any published material, you must have permission from the copyright holder and provide proper attribution. This includes any use of previously published images and figures: **all images are protected by copyright and can only be reprinted or modified with the permission of the copyright holder.** This is true even if you are the original author; even for figures found on a public website; and even if the material was in an open-access journal.

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Co-authors and other major contributors should be acknowledged, either within the chapter or in the overall acknowledgments section. If the authors of an included paper are copyright holders, written permission must be obtained from each author to use the paper in the AETD.

The formatting requirements described in this guide supersede the existing formatting of reprinted manuscripts, which may require reformatting of that text. The only exception to this policy is in

cases where the publisher, on giving permission to reprint the manuscript, prohibits altering the formatting.

## **APPENDIX FOR PERMISSION STATEMENTS**

Add permission statements to an appendix to be included with the thesis/dissertation.

## **LATER PUBLICATION OF THESIS/DISSERTATION CHAPTERS**

Chapters written in manuscript format can be submitted to a journal for publication later. Most journals will allow submissions that have been published in a thesis/dissertation. You can disclose that the manuscript was published in a thesis/dissertation in the cover letter, or as part of the submission process.

## **EMBARGO**

You can request a temporary embargo on the release of your thesis/dissertation if needed to protect intellectual property or unpublished data. Embargo duration may range from 6 months to 2 years. Contact the Assistant Dean for Academic Affairs via email to request an embargo with a CC: to your advisor.

## SECTION IV

### SUBMISSION OF THE THESIS/DISSERTATION

#### COMMITTEE REVIEW AND APPROVAL OF THE THESIS/DISSERTATION

The chair and members of the thesis/dissertation committee are responsible for confirming that the following criteria are met *before signing the “ETD Memorandum of Understanding” page*:

1. The thesis/dissertation is complete.
2. The thesis/dissertation demonstrates the candidate’s ability to conduct original research and contribute to the discipline, at a level appropriate to the M.S./Ph.D.
3. No further research is required.
4. Major revisions have been addressed; only minor format revisions may be required.
5. The formatting guidelines in this guide have been followed.

In addition, the candidate, advisor, and committee are responsible for ensuring that spelling, grammar, punctuation, formatting, etc. are correct in the final copy.

Some graduate programs have a formal timeline or process for committee review and approval of the reading copy. In general, committee members must have adequate time to review the reading copy in detail, request major revisions, and review major revisions if needed. In some cases, multiple rounds of revisions may be required. CGHS requires that candidates send a complete draft of the thesis/dissertation to their primary advisor for initial approval, then send the reading copy to all committee members for detailed review *at least 2 weeks before the defense date*.

#### CGHS REVIEW AND APPROVAL OF THE THESIS/DISSERTATION

CGHS will review the final copy to ensure that the title page and page margins are correct. If all is in order, the files will be submitted to the UTHSC Library Repository. The PDF will be published as it is submitted. After final AETD approval by the Assistant Dean for Academic Affairs, no changes to the document are allowed.

1. After your successful defense, submit the signed [Report of Final Exam](#) to the CGHS Office.

2. After the defense, when any committee-required changes have been completed and reviewed and the committee is ready to accept your AETD, submit the signed AETD Memorandum of Understanding (MOU) and AETD Approval page to the CGHS. After your committee approves the AETD, you may submit it for review to the CGHS. Contact the Assistant Dean of Academic Affairs to initiate the review and establish a Teams channel. Also submit the AETD Declaration of Authorship (DOA); see ETD Review & Approval Process (RAAP) for details.

## **THE FINAL COPY**

All final approved AETDs must be saved in 1) standard Portable Document Format (PDF) and 2) PDF/A-1b specification. These are uploaded to your Teams channel. (Email Larry Tague ([ltague@uthsc.edu](mailto:ltague@uthsc.edu)) to establish a Teams channel.)

## **Deadlines**

Scientific program requirements: Students must successfully

1. Defend their research and have signed the [Report of Final Examination](#) form and submitted it to the CGHS office.
2. Obtain mentor and committee approval via the AETD Memorandum of Understanding (AETD Approval form). The AETD Approval form is due by April 1, July 1, or November 1 to participate in the May, August, or December commencement ceremonies.

Students who meet the scientific program requirements after the April 1, July 1, or November 1 deadlines may submit their AETD for CGHS format review but must understand that students who meet the deadlines will have preferential status in the review queue. Students completing their requirements late (after the Registrar's final deadline for the May graduation) will receive an out-of-sequence diploma if all graduation requirements have been met before the registration deadline for the following term. The out-of-sequence diploma option may not be available for the Fall term.

In addition, you must complete [additional forms for graduation](https://www.uthsc.edu/graduate-health-sciences/students/forms.php) (<https://www.uthsc.edu/graduate-health-sciences/students/forms.php>). Also, the metadata form for inclusion of the AETD in the UTHSC Institutional Repository must be completed. The link for this form will be provided on your



private Team channel. Submit all forms to the CGHS office. Assistant Deans Tague and Washington maintain a shared checklist for these forms.

College of Graduate Health Sciences' requirements: Students must submit all required paperwork and have CGHS approval of their AETD formatting by five business days prior to the commencement ceremony (the deadline established by the Registrar's office). Graduation must occur during a term when the student is enrolled.

Students who do not obtain CGHS paperwork and ETD format approval by the end of the current term will not receive a diploma for that term and must enroll in the following term. With the Dean's permission, they may be allowed to take one credit hour (if they have not previously been allowed to use this option); otherwise, they must take nine credit hours at their own expense.

#### **PERSONAL BOUND COPIES OF THESIS/DISSERTATION (OPTIONAL)**

Students may elect to print personal copies of the thesis/dissertation, at their own expense.

#### **Notes:**

**These electronic thesis and dissertation preparation guidelines have been adapted from the University of Oklahoma University Health Sciences Center with permission for use on the UTHSC campus with specified provisions.**

**Theses and dissertations using these guidelines will be uploaded to The UTHSC Institutional Repository and will not be published via ProQuest.**

Note: Text in reddish colors indicates that it should be replaced with the relevant information. This text box should not be included in your document. When available, add a link to your name with your ORCID address and your advisor's name with his or her ORCID address or UTHSC web address.

UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

Master of Science Thesis/Doctoral Dissertation

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**Thesis/Dissertation Title**  
**Only 3 Lines Allowed,**  
**All Bold, Title Case Capitalization**

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*Author:*  
Your name as enrolled

*Advisor:*  
Advisor Name, Highest Degree

A *Thesis/Dissertation* Presented for The Graduate Studies Council of  
The University of Tennessee Health Science Center  
in Partial Fulfillment of the Requirements for the *Master of Science/Doctor of Philosophy* degree  
from  
The University of Tennessee  
in  
*Program: Track*  
College of Graduate Health Sciences

*Month and Year of Final Approval for Graduation*

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## **ACKNOWLEDGMENTS**

It is with deep gratitude and appreciation that I acknowledge the professional guidance and friendship of Dr. [Advisor's official name according to university records], whose constant guidance and support helped me to achieve my goal. My gratitude goes to the other members of the laboratory, Dr. Post Doc and technicians, Taylor Smith, and Jaime Doe. Their technical help and good humor made these years a great learning experience.

I am grateful to the graduate faculty of the Department of Microbiology and Immunology of the University of Tennessee Health Science Center, especially Dr. Program Director for encouraging and challenging me since the beginning of my studies. Gratitude is also expressed to the members of my reading and examination committee, Dr. John Jones, and Dr. Mary Miller.

I would also like to thank the staff of the CGHS for their constant help and for the financial support received through an NIH Ruth L. Kirschstein Predoctoral Fellowship (grant # 12345).

**Sample for Traditional Organization**

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**Sample for Manuscript Organization (includes optional Materials & Methods Chapter)**

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## **ABSTRACT**

The Simultaneous Multiple-Angle Reconstruction Technique (SMART), which uses impedance estimation as an initial estimate, is the most popular algorithm in use today. A modification of the SMART algorithm is proposed in this study. This new, improved algorithm is designated SMART2. Receiver Operating Characteristic Analysis (ROCA) was used to compare the performance of the SMART and SMART2 algorithms. It was found that heart phantom tomogram obtained using SMART2 were superior to those obtained using SMART.

Keywords:

Tomography, SMART, Algorithm

## CHAPTER I

### INTRODUCTION AND LITERATURE REVIEW

The presence of protein-bound carbohydrates in the serum was recognized before the beginning of this century (1,2). The major monosaccharide components of serum glycoproteins are galactose, mannose, glucosamine, and sialic acid. Galactosamine and fucose are minor constituents of some serum glycoproteins. These carbohydrates are widely distributed in major serum protein fractions for serum albumin but are particularly prominent in the  $\gamma$ -globulin fractions.

It is well known that the concentration of glycoprotein in human serum has increased in many physiological and pathological states. (3). Little is known about the metabolic alterations that lead to these changes.

In the present investigation, the mechanism of serum glycoprotein biosynthesis was studied in normal rats and in rats bearing Walker 256 sarcoma. *D-Glucosamine-114C* was used as a means of following. *It is important that you review the literature to know more about the field of study.*