

COLLEGE OF GRADUATE STUDIES POLICY FOR THE WRITTEN DISSERTATION/THESIS

Section 1. Purpose of the Dissertation/Thesis

An essential requirement for the Master's or Doctoral degree from the College of Graduate Studies is the successful completion of a written dissertation/thesis followed by an oral defense. In keeping with the high academic and educational objectives of the College of Graduate Studies, the dissertation/thesis should constitute a cohesive scholarly work that reflects a student's original writing and independent research with a thorough understanding of the field of study. The dissertation/thesis should include a review of the relevant scientific literature that establishes the context in which the student's research work may be assessed. It should include a record of his/her laboratory experience and his/her intellectual contributions to the field. It should be clearly written and follow standards of superior scientific scholarship.

Section 2. Format of the Dissertation/Thesis

A. General Statement.

The College of Graduate Studies recognizes that the format of the dissertation/thesis will, in part, be dictated by the scope, range and complexity of the research project. For a highly focused research project, such as at the Master's level (a literature review is not acceptable), the dissertation/thesis may conform to a traditional format, where basic style and grammar follows that described in a Style Handbook (for example, *Publication Manual of the American Psychological Association*). A Doctoral Dissertation also may conform to a similar format, or if it is composed of several related projects, an alternate format may include two or more "Chapters" to replace a single Results section. Each Chapter may resemble an independent manuscript for future publication; however, since it comprises only a part of the dissertation/thesis, each chapter must conform to a consistent style.

Inclusion of a manuscript as a dissertation/thesis chapter is permissible if the student is the sole author exclusive of the mentor. In those instances where a chapter may represent a manuscript with multiple authors, and is composed of data generated by multiple investigators; the following criteria must be met: 1) the student must have made a significant research contribution, 2) the research data contributed by the student must be clearly defined with all other sources of data derived from other investigators clearly acknowledged, and 3) the work must be logically connected and integrated into the dissertation/thesis in a rational and coherent manner. At the beginning of each chapter, a statement should clearly describe the contribution of the student and others to its contents.

Inclusion of previously published manuscripts shall comply with copyright laws of the journal publisher. Inclusion of phrases, paragraphs, illustrations or figures that have been previously published shall be properly referenced or acknowledged. Regardless of format, the student's intellectual and research contributions must be clearly recognized and easily read by the Dissertation/Thesis Committee.

B. Traditional format:

1. An **Introduction**, serves two major purposes: a review of the literature, and a statement of the research question under investigation. This section allows the student to provide a comprehensive background to the research project, serving as a review of the current state of the field. It should reflect a thorough understanding of the existent research literature with recognition of important contributions and contemporary thinking. It should establish the logical basis or context of the dissertation/thesis research problem or hypothesis with the current literature. Additionally, it is appropriate to include in this section the rationale and justification for use of a particular animal model and/or use of particular investigational methodologies.

2. A **Materials and Methods** section should provide a full description of the animals, organisms or subjects studied, their numbers, materials used and their sources. Research methodologies should be referenced, equipment used, and any modifications or deviations from published analytical procedures fully described. To assess the quality of the data, this section should include how and when data are collected, the methodologies employed and the reliability and validity of the procedures used. It should be presented in sufficient detail that will allow replication of the study. Standard methods should be referenced; however, any modifications to methodology should be described in detail and may be included in this section or in an **Appendix**. In this section, the technical help of others, or necessary division of labor can be acknowledged, but the student should indicate an understanding of all procedures used. This section should include how the data were analyzed, the statistical methodology employed, including the accepted level of significance, and how the data are expressed in the text.

3. A **Results** section, should contain only the original contributions of the student that represents a documentation of the laboratory experience that is clearly written without interpretation. Although data generated by others in collaboration with the student can be cited in this section, the source must be properly acknowledged; for example, in the form of a footnote to the data, included in an Appendix.

Tables, figures and graphs should be accompanied by an appropriate title, legend, or with a footnote to provide explanation of variables, abbreviations or levels of significance, where appropriate, without reference to the text. They should be numbered in order and placed within the text where referred. All tables and figures should be cited in the text.

4. A **Discussion** section that discusses and interprets the data including any ambiguities or variations. This section should attempt to answer the research question/hypothesis posed in the Introduction, interpret the data in the context of the prevailing literature, and discuss the significance of the findings.

5. Additional sections to the dissertation/thesis follow in Section 3D.

C. The Chapter format:

This format provides an opportunity for a student, who has multiple but related projects, to present the results of his/her research in a format that resembles a journal article. To provide the same depth of historical background, this format would include the following sections.

1. An **Introduction** that is similar to that described above for a more traditional format that includes a comprehensive background to the research project, establishing the logical basis or context of the research problem in relation to the current literature. In addition, it will clarify the interrelationships of the various chapters and set each chapter into the larger context of the research question of the entire dissertation/thesis.

2. Each **Chapter** includes work that represents a clearly defined theme and may be considered as an individual journal article. Chapters may be formatted to a specific journal style. A chapter would include;

A. A brief **Introduction** that is specific to the chapter contents, relating to the aim of the chapter.

B. A **Materials and Methods** section that describes the animals or organisms studied, materials used and their sources, with specific methodologies described appropriate to the individual chapter. Details should be sufficiently described to allow replication of the study. Extensive details or specific modifications may be included in an Appendix. As described for the traditional format, this section should include how the data were analyzed, the statistical methodology employed, including the accepted level of significance, and how the data are expressed in the text.

C. A **Results** section should contain only the original contributions of the student that represents a documentation of the laboratory experience that is clearly written without interpretation. As noted above, data generated by others in collaboration with the student can be cited in this section, the source must be properly acknowledged; for example, in the form of a footnote to the data, included in an Appendix or at the beginning of each chapter.

Tables, figures and graphs should be accompanied by an appropriate title, legend, or with a footnote to provide explanation of variables, abbreviations or levels of significance, where appropriate, without reference to the text. They should be numbered in order within each chapter and placed within the text where referred. All tables and figures should be cited in the text.

D. A **Discussion** section that is specific to the chapter; that interprets the data including any ambiguities or variations. This section should attempt to answer the focal research question/hypothesis specifically addressed in the Chapter introduction. It should include an interpretation of the data in the context of the current literature, and discuss the significance of the findings.

3. A separate **Discussion** section that provides a comprehensive overview of the results of the multiple chapters and serves to answer the broader research questions and hypothesis posed in the main Introduction.

D. Additional Sections.

For either of the above formats, the following sections are included:

1. An **Acknowledgment** page may be included to thank those who have provided assistance during the project. Permissions to quote copyrighted material or use of previously published illustrations are listed here, as well as acknowledgments for grants and special funding.

2. An overall **Bibliography**, or individual bibliographies at the end of each chapter maybe used.

3. In addition to the above, the dissertation/thesis should contain a one page **Abstract**, a **Table of Contents** referring to the pages of the text, and a **Listing of Figures and Tables**. Extensive ancillary detail may be referred to an **Appendix** section.

4. An important element of the dissertation/thesis is a consistent format that requires the student to adhere to standard norms of appearance that enables the committee to concentrate on content without distraction. The dissertation/thesis should be double spaced, on one side of standard 8 1/2" x 11" white paper with 1 1/2" margin on left side and 1" margin on top, bottom and right sides. [The Library recommends 22 pound, acid-free white paper.] Typeface should be letter quality, or if multiple font styles are available it should be of serif type, either 10 or 12-point. Preface pages preceding the Introduction should be numbered using small Roman numerals, with all subsequent text pages numbered consecutively in Arabic numerals in the bottom margin. The metric system for measures and weights should be used throughout. If **Chapters** are formatted for a specific scientific journal, then the appropriate abbreviations, mathematical formulas and equations, descriptions of solutions, and formats for illustrations, figures and tables within the dissertation/thesis should follow a consistent style throughout the text that conforms to journal specifications. Reprints of publications may not be bound within the dissertation/thesis without permission of the Dissertation/Thesis Advisory Committee. Previously published material written by the student may be included within the prescribed format provided appropriate permission has been granted from the publisher and all copyright laws have been recognized.

5. The **Abstract** should be no longer than 350 words as required by University Microfilms for inclusion in *Dissertation Abstracts*. The abstract should give a succinct account of the dissertation/thesis so that the reader can quickly learn the essential contents and results. A typical abstract includes a statement of the problem, an account of procedures or methods followed, and an account of main results and conclusions. The abstract must be carefully prepared, since no editing or revision is generally done before publication. At the top of the abstract place the following:

Abstract

Title of Dissertation/Thesis

Author's Name

Sponsor's Name

6. The **Title Page** must have the following form:

Title of Dissertation/Thesis (All capital letters)

Author's Name

A Dissertation/Thesis in
(Program)

Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Master of Science) in the College of Graduate Studies of State University of New York, Upstate Medical University.

Approved _____
(Sponsor's signature)

Date _____