THESIS AND DISSERTATION STANDARDS

4th Edition
2013

SOUTHEASTERN LOUISIANA UNIVERSITY

THE GRADUATE COUNCIL
# TABLE OF CONTENTS

## CHAPTER

I. **INTRODUCTION** .................................................................................................................. 2

II. **LEGAL AND REGULATORY REQUIREMENTS** ................................................................. 4

   Previously Published Material ......................................................................................... 4
   Copyrighted Material ......................................................................................................... 4
   Research Protocols and Regulatory Compliance ............................................................. 4
   Ethical Standards ................................................................................................................ 4

III. **FORMAT AND APPEARANCE** ..................................................................................... 5

   General Format .................................................................................................................... 5
   Recommended Style ............................................................................................................. 5
   Basic Rules .......................................................................................................................... 6
   Margins ................................................................................................................................ 6
   Fonts .................................................................................................................................... 6
   Spacing ............................................................................................................................... 7
   Pagination ............................................................................................................................ 8
   Tables and Figures .............................................................................................................. 8
   Equations ............................................................................................................................ 9
   Footnotes, Endnotes, and References ............................................................................... 9
   Consistency and Matching ............................................................................................... 10

IV. **PRELIMINARY PAGES** ............................................................................................... 11

   Title Page ............................................................................................................................ 12
   Copyright Page ..................................................................................................................... 14
   Committee Approval Page ............................................................................................... 16
   Abstract(s) .......................................................................................................................... 18
   Dedication Page (Optional) ............................................................................................... 21
   Acknowledgements Page (Optional) .................................................................................. 23
   Table of Contents ............................................................................................................... 25
   List of Tables ....................................................................................................................... 28
   List of Figures ..................................................................................................................... 30

V. **BODY OR TEXT PAGES** ............................................................................................. 32

   Body or Text ......................................................................................................................... 32
   Division into Chapters ......................................................................................................... 32
   Division of Chapters into Sections ..................................................................................... 32
   Introduction ......................................................................................................................... 33
   Conclusion ........................................................................................................................... 33
   Other Formatting Pages ...................................................................................................... 33
Example Pages ........................................................................................................... 34
First Page of Chapter .............................................................................................. 34
Pages with Subheadings ....................................................................................... 36
Pages with Equations ........................................................................................... 38
Pages with Tables .................................................................................................. 39
Pages with Figures ............................................................................................... 45
Pages with Footnotes ........................................................................................... 49

VI. THE REFERENCE MATERIAL ............................................................................. 51

Bibliography, References, List of References, etc ................................................. 51
Reference List at End of Document ...................................................................... 51
Reference List at End of Chapter ......................................................................... 52
Example References Cited Pages .......................................................................... 53
Appendices ............................................................................................................. 57
Example Appendix Page ....................................................................................... 59

VII. SUBMISSION OF THESIS OR DISSERTATION ............................................ 60

APPENDIX

A. ACCEPTABLE VARIANCES FOR FORMATTING FOR CREATIVE WRITING THESES ........................................................................................................... 63

B. FORMATTING OF HEADINGS APPROVED FOR EDD STUDENTS ...... 66
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 graduate coordinator or major professor to learn of specific department and program guidelines for the thesis or dissertation also.

Southeastern Louisiana University requires students to submit theses and dissertations to ProQuest, an entity that provides electronic publication of theses and dissertations. As a result, Southeastern's theses and dissertations will reach a national audience, therefore meeting the standards in all aspects as prescribed in this document is necessary. Students should remember that theses and dissertations are checked 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.

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 Southeastern Louisiana University, 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.
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 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.
CHAPTER II

LEGAL, REGULATORY, AND ETHICAL REQUIREMENTS

Previously Published Material

A student is only allowed to use in the thesis or dissertation material previously published while enrolled in the current degree program and work that is appropriately integrated into the final work.

Copyrighted Material

When substantial portions of copyrighted material, whether written or graphic, are to be included in a thesis or dissertation, ProQuest Information and Learning requires written permission of a copyright holder. The ProQuest website provides information for gaining permission of a copyright holder. A delay in processing can occur if copyright permission is not gained in advance.

Research Protocols and Regulatory Compliance

The nature of some research requires that protocols and procedures be reviewed and approved before the student initiates the work. Research involving human subjects (including surveys), animal subjects, recombinant DNA, and radioactive materials must be approved before the research can begin. Questions about human subjects research should be directed to the appropriate academic dean.

Ethical Standards

The ethical standards commonly accepted by and adhered to by a discipline should be the guide for conducting research. Southeastern's Misconduct in Research Policy defines misconduct in research and the procedures used to investigate alleged misconduct. The policy is located on the Southeastern website at:

http://www2.selu.edu/documents/policies/misconduct_research.pdf
CHAPTER III

FORMAT AND APPEARANCE

General Format

These standards endorsed by the Graduate Council are to ensure that Southeastern Louisiana University theses and dissertations will have a consistently professional appearance. Close attention to these standards during document preparation will save time during the format review process conducted by personnel in Sims Memorial Library.

In cases where the publication outlet format differs from the standards in this manual, a letter from the major advisor indicating the acceptability of the differences must be submitted to the appropriate academic dean for approval of the format variation before writing of the thesis or dissertation begins. A copy of the dean’s approval must accompany the thesis or dissertation when submitted for the formatting review. Given the flexibility of electronic technology for editing and formatting, students should adhere to the prescribed standards when at all possible.

Recommended Style

Degree-granting units select an acceptable style. 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 appropriate academic dean 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. A copy of the dean’s approval must accompany the thesis or dissertation when submitted for the formatting review. Punctuation, spelling, and general format should be accurate and consistent.

**Basic Rules**

Detailed instructions for formatting each part of the document can be found elsewhere in these standards along with examples, but the following rules apply throughout the thesis or dissertation.

**Margins**

- Left margin on every page, including the title page = 1.5 inches (The extra half inch is necessary for binding.)
- Right margin on every page = 1 inch
- Bottom margin on every page = Approximately 1 inch
- Top margin on title page, committee approval page, dedication page, acknowledgements page, and the first page of each new section or chapter = 2 inches
- Top margin on abstract page and pages other than those mentioned above = 1 inch

**Fonts**

- A ten to twelve point font size should be used consistently throughout the document. Larger font sizes should never be used. Smaller size font may be used, if necessary, in extensive tables, formulas, Greek symbols, subscripts, superscripts, and footnotes. One standard font, such as Arial or Times New Roman, should be used consistently throughout the document, including for page numbers.
- Only the document title, chapter titles, and section titles should be all capital letters.
Font Formatting Options for Various Parts of the Document

<table>
<thead>
<tr>
<th></th>
<th>Boldface</th>
<th>Italics</th>
<th>Underlining</th>
<th>All Capitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis/Dissertation Title</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Chapter Numbers</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Chapter or Section Titles</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Subheadings</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Table Titles</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Figure Titles</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Non-English Words</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Citation of Titles</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Special Symbols or Names (e.g. mathematical symbols, scientific names, organisms)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Within Tables</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Within Figures</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Spacing**

- Text may be left-justified or full-justified.
- All paragraphs must be indented 0.5 inches.
- Single space = no blank lines between lines of text; Double space = one blank line between lines of text; Triple space = two blank lines between lines of text.
- The body of the document should be double spaced.
- Single spacing should be used within entries on the Table of Contents, List of Tables, List of Figures, and References list with one blank line between entries. Footnotes and endnotes too are single spaced with one blank line between each. Single spacing is
used within quotations three lines or longer, multi-line captions, and multi-line table or figure titles. Lists may be single spaced.

- Tables may be double spaced, or single spaced with one blank line between rows. Tables and figures may be separated from text by one or two blank lines. The same spacing should be used both above and below.

- Widow or orphan lines are not permitted. These are single lines of text that appear on the page preceding or following the rest of the paragraph.

- Unnecessary white space should be avoided where possible.

- Centering – When centering text, remember that due to the 1.5 inch left margin, correctly centered text will be slightly off to the right side of the page.

- Try to ensure that there is at least one blank line between the last line of text and the top of the page number.

**Pagination**

- The title page is page number 1, but the number should not appear on the page. All other pages should include a page number. The first page of the first chapter is page number 2.

- Page numbers should be centered one inch from the bottom of the page.

- Small Roman numerals are used for the preliminary pages. Arrange those pages in the following order: dedication; acknowledgments; table of contents; and the lists of tables, figures, plates, symbols, abbreviations, and/or nomenclature.

- Arabic numerals are used for paginating the remainder of the document, including the text, reference material, and appendices. Numbers should run sequentially from page 2 through the end of the document.

**Tables and Figures**

- A table consists of columns of information, often in the form of numbers. A figure is any kind of graphic illustration other than a table.

- Use Arabic numerals for numbering tables and figures. Tables and figures may be numbered consecutively throughout the document (1, 2, 3, etc.) or consecutively within chapters (1.1, 1.2, 1.3, 2.1, 2.2, 2.3, etc.).
• Table numbers and titles appear above the table. Figure numbers and titles appear below the figure.

• All tables and figures, including those in the Appendix should be included in the List of Tables or List of Figures.

• Tables and figures should be mentioned in the text before being presented and each should be placed as close as possible to the text describing it.

• Text and tables/figures may appear on the same page, but tables and figures should appear before or after a complete paragraph and must not be placed within a paragraph. Tables or figures more than one-half page long may be placed on a separate page.

• More than one table or figure can be placed on a single page. Insert three or more blank lines between the two. A short, centered line may be placed between the two to further divide them.

**Equations**

Important equations (typically those referred to in the text) should have numerical identification and should be numbered consecutively throughout each chapter, e.g. (1-1), (1-2), (2-1), (2-2), and so on. This is done to provide a shorthand method of referring back to a specific equation later on in the text.

**Footnotes, Endnotes, and References**

Candidates should confer with their advisors regarding citation styles acceptable to their disciplines and use the designated style manuals. See examples starting on page 50.

• References may be numbered consecutively throughout the entire document or consecutively within each chapter.

• References may be placed at the end of a chapter or at the end of the document. The reference position must be consistent throughout the document.
A reference to information within tables should be placed directly below the pertinent table.

Regardless of the style used, references must be single-spaced with double spaces separating each item.

**Consistency and Matching**

Formatting must be consistent throughout the document. For example, if boldface is used for one chapter title it must be used for all the other chapter titles. If one table title is centered all the other table titles must be centered, and so on. Whatever formatting is done must be done the same way throughout the document.

Entries in the Table of Contents, List of Tables, List of Figures, etc. must match exactly the corresponding entries within the body of the document—spelling, punctuation, capitalization, and so on must all be the same in both places. The page number given for each entry must match the page on which the entry appears. The student's complete name must be used on the title page, copyright page, abstract page, and wherever else it may appear. The title on the title page must match exactly the title on the committee approval page and the abstract page, and so on.

Double-check the document for consistency and matching before submitting it for format review.
CHAPTER IV
PRELIMINARY PAGES

The preliminary pages must conform to the format specified in the following examples, unless otherwise indicated.

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Instructions and example page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title page</td>
<td>12 - 13</td>
</tr>
<tr>
<td>Copyright page</td>
<td>14 - 15</td>
</tr>
<tr>
<td>Committee Approval Page</td>
<td>16 - 17</td>
</tr>
<tr>
<td>Abstract Page(s)</td>
<td>18 - 20</td>
</tr>
<tr>
<td>Dedication Page (optional)</td>
<td>21 - 22</td>
</tr>
<tr>
<td>Acknowledgements Page (optional)</td>
<td>23 - 24</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>25 - 27</td>
</tr>
<tr>
<td>List of Tables</td>
<td>28 - 29</td>
</tr>
<tr>
<td>List of Figures</td>
<td>30 - 31</td>
</tr>
</tbody>
</table>

Note: The title of each sample page appears within a shaded rectangle in the upper right-hand corner of each page near this manual's page number. The number at the bottom of the page represents the number of the sample page within the thesis or dissertation.
Title Page

1. The top margin should be 2 inches and the text should be centered both vertically and horizontally. Spacing within the title page is specified below.

2. A standard font must be used through the document. Do not use boldface, italicize or underline on the title page; italics or underline may be used for scientific names.

3. The full title is typed in all capital letters. If the title is longer than 1 line, double space between the lines of the title. The lines of the title are arranged in inverted-pyramid style.

4. The author’s full name must be used. The author’s name must match exactly the name on the copyright, committee approval, and abstract pages.

5. All information elements must fit on the page in a visually appealing way. The actual distances between the elements will vary slightly depending on the length of the information. Minimum distance requirements are listed below:
   a. The distance from the last line of the title to the word “By” and from the named individual to the following element should both be approximately equal.
   b. There should be a single blank line between the word “By” and the name.
   c. Two blank lines are left between the name of the discipline and the place.
   d. One blank line is left between the place and the date.

6. The degree statement must match the example, with the following exceptions:
   a. Doctoral candidates should replace “Thesis” with “Dissertation” and make other changes as necessary to reflect that the degree originates with a consortium of universities.
   b. The correct degree and major.

7. The date is the month and year in which the degree is awarded. Acceptable months are May, August and December. There should be no comma between month and year.

8. The title page is page 1 of the document; however, no page number is printed on the title page.
EFFECT OF ORGANOPHOSPHATE EXPOSURE ON
CHOLESTERYL ESTER HYDROLASE

By
Matthew Allen Wilder

A Thesis Submitted to the Faculty
of Southeastern Louisiana
University
in Partial Fulfillment of the Requirements
for the Degree of Master of Science
in Biology

Southeastern Louisiana University
Hammond, Louisiana

December 2011

The title page is page 1 (Arabic numeral), but the number is not printed on the page.
Copyright Page

1. The copyright page is required; however, the student is not required to formally register the copyright through ProQuest.

2. The text should be page centered (vertically and horizontally).

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

4. The copyright page is numbered with a Roman numeral i.

5. The author's name must match exactly the name as used elsewhere in the document.
Copyright by

Matthew Allen Wilder

2011
Committee Approval Page

1. Ensure that the left margin is 1.5 inches.

2. All information elements must fit on the page in a visually appealing way. The actual distances between the elements will vary slightly depending on the length of the information:
   a. The distance from the top of the page to the first line of the title will be 2 inches.
   b. The distance from the last line of the title to the word “By” is (5 line spaces).
   c. Insert a single blank line space between the word “By” and the name.

3. The full title is typed in all capital letters. If the title is longer than 1 line, leave a single space between each line. The lines of the title are arranged in inverted-pyramid style.

4. The formatting of the title on the committee approval page must match exactly the title page.

5. The author’s full name is centered on the page. The author’s name must match the name on the title, copyright, and abstract pages.

6. Signature lines are provided for the thesis or dissertation director, and the dean of the particular academic college, and committee members. Beneath each signature line, the person’s name, title, and role(s) in approving the thesis or dissertation are listed; however, the person’s degree designations are not included. Signatures lines should begin on the fourth line below previous lines of type. Only include signature lines for the individuals mentioned above.

7. All signatures must be original “pen and ink” (black or blue ink only); scanned signatures or “signed by” signatures are not acceptable. **ALL signatures must be present before Sims Memorial Library will accept the document for format review.**

8. The approval page is numbered with a Roman numeral ii.

9. The original approval page should be printed on 25%, 20 lb cotton paper.
EFFECT OF ORGANOPHOSPHATE EXPOSURE ON
CHOLESTERYL ESTER HYDROLASE

By
Matthew Allen Wilder

Approved:

Peter D. Smith
Professor of Biological Sciences
(Director of Thesis)

Michael E. Tanner
Associate Professor of Biological Sciences
(Committee Member)

Taylor M. O’Leary
Associate Professor of Chemistry
(Committee Member)

Kelly C. Varder
Professor of Nursing
(Committee Member)

Russell H. Sorensen
Department Head of the Department of
Biological Sciences

Christopher E. Daniels
Dean of the College of Science and
Technology
Abstract Page(s)

1. The margin at the top of the first page is 1 inch.

2. The author's full name must be used. The author's name must match the name on title, copyright, and committee approval pages.

3. The student's previous degree(s), institution(s), year of degree(s), and discipline(s) are the second entry on the abstract page. Separate multiple degrees using a semicolon.

4. The date of the degree must include the month, day and year of graduation. (Dates are found on the University's academic calendar and on the Office of Records and Enrollment information page.)

5. If the major professor is not the dissertation director, the dissertation director's name must also be listed.

6. The title must be in all capital letters. If the title is longer than 1 line, single space between the lines. Titles more than 1 line long must be blocked as shown in the example.

7. The number of pages given for "Pages in Study" must match the page number on the last page of the document.

8. The appropriate degree must be listed.

9. Two blank lines are left between the degree line and the next line of text. Double space between the lines of the abstract.

10. The maximum length for a dissertation abstract is 350 words. The maximum length for a thesis abstract is 150 words.

11. If the discipline requires key words, two blank lines are left between the last line of the abstract and the key words. The suggested format is: Key words: key word 1, key word 2, key word 3, etc.

12. The pages of the abstract are numbered with Roman numerals iii and iv.

13. It is the sole responsibility of the student to ensure that all information in the abstract is accurate.
Name: Matthew Allen Wilder

Previous degrees: B.S., Delta State University, 1977, (Biophysics)

Date of Current Degree: December 9, 2012

Institution: Southeastern Louisiana University

Major Field: Biological Sciences (Immunology)

Major Professor: Dr. Peter F. Strauss

Title of Study: THE EFFECTS OF ANDROGENS AND HIGH-FAT, LOW PROTEIN DIET ON LYMPHOCYTE TRANSFORMATION IN TACONIC SWISS MICE

Pages in Study: 187

Candidate for Degree of Master of Science

Studies recently and currently in progress are providing insight into the influence of protein deficiency on cell-mediated mechanisms of immunity. One of the ways in which these mechanisms can be assayed is the lymphocyte blastogenesis procedure.

The present investigation was designed to demonstrate the effects of high fat, high carbohydrate and low protein (G-2) diet with concurrent administration of either testosterone or methylandrostenediol on hematocrit and weight determinations and splenic lymphocyte stimulation in Taconic Swiss mice. Results of this study indicate that testosterone and methylandrostenediol may prevent perivascular cuffing of coronary arteries.

A positive correlation was found between activation of splenic lymphocyte cultures by phytohemagglutinin and the occurrence of coronary arterial perivascular
cuffing. The experimental groups (ovariectomized, hormone treated, and/or diet) receiving hormones with the G-2 diets revealed protection of coronary arteries from perivascular cuffing based on stimulation indices that approximated those of normal mice. Testosterone had a greater tendency to prevent perivascular cuffing.

Key words: G-2 diets, lymphocyte transformation, perivascular cuffing
Dedication Page (optional)

1. A two inch margin is left between the top of the page and the first line of text.

2. The word DEDICATION is typed in all capital letters and centered horizontally on the page. Do not use boldface, italics or underline.

3. One or two blank lines are left between DEDICATION and the next line of text.

4. If included, the dedication will be page v.
I would like to dedicate this research to my parents, Frederick and Hanna Wilder, and my brother Jason.
Acknowledgements Page (optional)

1. A two inch margin is left between the top of the page and the first line of text.

2. The word ACKNOWLEDGEMENTS is typed in all capital letters and centered horizontally on the page. Do not use boldface, italics or underline.

3. One or two blank lines are left between ACKNOWLEDGEMENTS and the next line of text.

4. If the dedication page is included, this page will be vi. If the dedication page is omitted, this will be page v.
ACKNOWLEDGEMENTS

The author expresses his sincere gratitude to the many people without whose assistance this dissertation could not have been completed. First of all, sincere thanks are due to Dr. Peter F. Strauss, my committee chairman, for his magnanimity in expending time and effort to guide and assist me throughout the intricacies of the master’s program and the thesis process. Expressed appreciation is also due to the other members of my thesis committee, namely, Dr. Bailey R. Keenan, Dr. Taylor M. O‘Leary, and Dr. Kelly C. Darden, for the invaluable aid and direction provided by them. Finally, the author would like to thank Dr. Herbert Hubbell of the University of North Carolina for making available the specially formulated G-2 diet used in this study.


Table of Contents

The Table of Contents must conform to the format specified in the example that follows, unless otherwise indicated.

1. A two inch margin is placed between the top of the page and the first line of text.

2. The words TABLE OF CONTENTS are typed in all capital letters and centered horizontally on the page. Do not use boldface, italics or underline for the words TABLE OF CONTENTS or other information in the contents. Italics or underline may be used for scientific names.

3. One or two blank lines are left between TABLE OF CONTENTS and the next line of text.

4. Major divisions should be in all capital letters and aligned with the left margin.

5. Page numbers in the table of contents must match page numbers in the document. Page numbers should be aligned with the right margin.

6. Leave one blank line between the word Chapter and the title of the first chapter.

7. Chapter titles and headings must match the capitalization, wording, and punctuation of the titles and headings in the body.

8. The second line of titles and headings is indented 0.5 inches. Second-level (and subsequent headings) are indented at least 3 spaces.

9. Include dot leaders between the end of each entry and its page number.

10. On contents pages other than the first page, 1-inch of white space is left at the top.

11. Appendix designations, titles, and page numbers must exactly match the document.

12. The appropriate small Roman numeral(s) should be used for the page number(s).
TABLE OF CONTENTS

DEDICATION .................................................................................................................... ii
ACKNOWLEDGMENTS ........................................................................................................ iii
LIST OF TABLES .................................................................................................................. v
LIST OF FIGURES .............................................................................................................. vi

CHAPTER

I. INTRODUCTION ......................................................................................................... 2

Background ...................................................................................................................... 2
   Cell-mediated immunity ................................................................................................. 3
   G-2 Diets ......................................................................................................................... 4
Statement of the Problem .............................................................................................. 5
Objectives of the Study .................................................................................................. 8
Justification and Usefulness of the Study ..................................................................... 12
Scope and Limitations of the Study .............................................................................. 13
Summary and Plan of Presentation ................................................................................. 14

II. LITERATURE REVIEW ............................................................................................. 16

Review of Cell-Mediated Immunity and Disease ......................................................... 16
   A Brief History of Cell-Mediated Immunity ................................................................. 17
   Diseases with Cell-Mediated Associations ................................................................ 24
   Cardiovascular Disease and Cell-Mediated Immunity ............................................... 30
Review of Diets and Disease ......................................................................................... 31
   Low Fat, High Carbohydrate, Low Protein Diets ....................................................... 31
   Neural Networks Background ..................................................................................... 32
   Types of Neural Network Models .............................................................................. 33
   The Use of Neural Networks in Forecasting ............................................................... 35
Penalty Costs .................................................................................................................... 36
Conclusion ....................................................................................................................... 37
List of Tables

The list of tables must conform to the format specified in the example that follows, unless otherwise indicated:

1. A 2-inch margin is placed between the top of the page and the first line of text.

2. The words LIST OF TABLES are typed in all capital letters and centered horizontally on the page. Do not use boldface, italics, or underline for information in this list; italics or underline maybe used for scientific names.

3. One or two blank lines are left between LIST OF TABLES and the next line of text.

4. Table numbers, titles, and page numbers in the LIST OF TABLES must exactly match those in the document (including those in the Appendix).

6. The second line of table titles is indented 0.5 inches.

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

8. Include dot leaders between the end of each entry and its page number.

9. On LIST OF TABLES pages other than the first page, a 1-inch margin is left at the top.

10. The appropriate small Roman numeral(s) should be used for the page number(s).
LIST OF TABLES

4.1 Parameters for Optimal Individual Forecasting Models for Randomly Simulated Data .......................................................... 68

4.2 Weights for Individual Forecasts for Case #1 ........................................... 80

4.3 Weights for Individual Forecasts for Case #2 ........................................... 81

4.4 Weights for Individual Forecasts for Case #3 ........................................... 82

4.5 Weights for Individual Forecasts for Case #4 ........................................... 83

4.6 Summary Statistics of Forecast Errors for Case #1 ................................... 84

4.7 Summary Statistics of Forecast Errors for Case #2 ................................... 84

4.8 Summary Statistics of Forecast Errors for Case #3 ................................... 85

4.9 Summary Statistics of Forecast Errors for Case #4 ................................... 85

4.10 Shapiro-Wilk Normality Test for Case #1 Forecasts ................................ 87

4.11 Shapiro-Wilk Normality Test for Case #2 Forecasts ................................ 87

4.12 Shapiro-Wilk Normality Test for Case #3 Forecasts ................................ 88

4.13 Shapiro-Wilk Normality Test for Case #4 Forecasts ................................ 88

4.14 Correlation Coefficients for Case #1 ...................................................... 90
List of Figures

The List of Figures must conform to the format specified in the example that follows, unless otherwise indicated.

1. There are 2-inches of white space between the top of the page and the first line of text.

2. The words LIST OF FIGURES are typed in all capital letters and centered horizontally on the page.

3. One or two blank lines are left between LIST OF FIGURES and the next line of text.

4. Figure numbers, titles, and page numbers in the LIST OF FIGURES must exactly match those in the document (including those in the Appendix).

5. The second line of figure titles is indented 0.5 inches.

6. Figure titles longer than one line are single spaced and one blank line is left between figure titles.

7. Include dot leaders between the end of each entry and its page number.

8. On LIST OF FIGURES pages other than the first page, a 1-inch margin is left at the top.

9. The appropriate small Roman numeral(s) should be used for the page number(s).
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Procedure Followed in Achieving the Objective</td>
<td>11</td>
</tr>
<tr>
<td>2.1</td>
<td>Overall MAPE as a Function of Number of Methods</td>
<td>28</td>
</tr>
<tr>
<td>3.1</td>
<td>Description of the Data Generating Process</td>
<td>44</td>
</tr>
<tr>
<td>3.2</td>
<td>Neural Network for Combining Forecasts</td>
<td>53</td>
</tr>
<tr>
<td>3.3</td>
<td>Modular Neural Network</td>
<td>54</td>
</tr>
<tr>
<td>3.4</td>
<td>Graphic Description of Forecasted Data Sets</td>
<td>58</td>
</tr>
<tr>
<td>4.1</td>
<td>Case #1 Data Summary</td>
<td>64</td>
</tr>
<tr>
<td>4.2</td>
<td>Case #2 Data Summary</td>
<td>65</td>
</tr>
<tr>
<td>4.3</td>
<td>Case #3 Data Summary</td>
<td>66</td>
</tr>
<tr>
<td>4.4</td>
<td>Case #4 Data Summary</td>
<td>67</td>
</tr>
<tr>
<td>4.5</td>
<td>MNN Architecture</td>
<td>75</td>
</tr>
<tr>
<td>4.6</td>
<td>Modular Neural Network Training Procedure</td>
<td>77</td>
</tr>
<tr>
<td>4.7</td>
<td>Composite Model Comparison for Case #1</td>
<td>101</td>
</tr>
<tr>
<td>4.8</td>
<td>Composite Model Comparison for Case #2</td>
<td>102</td>
</tr>
<tr>
<td>4.9</td>
<td>Composite Model Comparison for Case #3</td>
<td>103</td>
</tr>
<tr>
<td>4.10</td>
<td>Composite Model Comparison for Case #4</td>
<td>104</td>
</tr>
</tbody>
</table>
CHAPTER V

BODY OR TEXT PAGES

Body or Text

The text is divided into chapters including, at a minimum:

1. An introduction, which is considered the first chapter

2. Discussion of the research, which may be presented in 1 or more chapters

3. A conclusion, and

4. A list of references, which may be presented at the end of each chapter or at the end of the document

Division into Chapters

Each chapter must be labeled with the word CHAPTER followed by either an Arabic or Roman numeral. Numeral style should be consistent throughout the document. Following the CHAPTER and on a different line should be a descriptive title. The descriptive title indicates the subject content of the chapter and should readily communicate what is being presented. Instructions and an example are provided on pages 34 and 35, respectively. All other chapters should follow this same format. Chapters may be materials that will be stand alone publications; however, the format must adhere to the standards presented in this manual.

Division of Chapters into Sections

Chapters may be divided with headings and subheadings. Each level of heading must be formatted differently and applied consistently throughout the document.
Introduction

A preface may precede the introduction; however, there typically is no need to include one. An overall introduction is required even if subsequent chapters have their own introductions. The overall introduction should not be a recapitulation of individual chapter introductions. Its function is to explain how the individual chapters work together to form the cohesive document described in the publications policy statement.

The introduction must be the first chapter. The general chapter title (such as CHAPTER 1) in all capitals must be at the top of the page and centered beneath a 2 inch margin (white space); the word INTRODUCTION is one blank space below the CHAPTER. The text begins below INTRODUCTION after one or two blank lines.

Conclusion

The conclusion explains how the preceding chapters work together to solve the problem outlined in the introduction. The general chapter title in all capitals, e.g., CHAPTER IV, must be at the top of the page and centered beneath a 2 inch margin; the word CONCLUSION, or similar descriptive title, is placed one blank line of space below the chapter title. The text begins below the word CONCLUSION after one or two blank lines of space.

Other formatting examples

Instructions and/or formatting examples for subheadings, equations, tables, figures and footnotes in the body of the text are provided on pages 36 – 50.
Example Pages

First Page of Chapter

1. The left margin must be 1.5 inches. The right and bottom margins must be 1 inch.

2. The general title, i.e., CHAPTER, should be centered and 2 inches from the top edge of the page. The chapter number is placed on the same line immediately after CHAPTER. All capital Roman or Arabic numerals are used.

3. Double space (one blank line) between the CHAPTER number and the descriptive title.

4. The descriptive title is centered, and all capitals are used. If the title is longer than 1 line, double space the title. The lines of the title are arranged in the inverted-pyramid style.

5. Chapter numbers and titles may be boldfaced; however, students should follow the style requirements for their department.

6. One or two blank lines are left between the descriptive title and the text.

7. The page number is centered at the bottom. The first page of CHAPTER 1 is page 2 because the title page of the document is page 1.
A competent immune system in the animal organism is dependent upon the proper functioning of its component cells which have carefully defined immunologic functions and are under precise control in the healthy subject. These cells include B and T lymphocytes and macrophages. However, within the lymphoid cell population, 0.5 – 2.0% are considered to be “null” cells or non-T, non-B cells. B cells synthesize immunoglobulins that contribute the humoral limb of the immune response. The cell-mediated response generated by T cells is responsible for lymphokine production and protection against some bacteria, viruses, and fungi. Macrophages are capable of engulfing foreign organisms and particulate antigens, degrading the material, and presenting it to lymphoid cells. Those few lymphoid cells known as “null” cells are believed to act as killer cells responsible for cytotoxicity and immune surveillance associated with tumor immunity.
**Pages with Subheadings**

1. Chapters may be divided into sections with descriptive headings.

2. Departmental style guidelines must be used in selecting heading formats. The sample pages show some acceptable methods of formatting headings. Other formats are acceptable if applied consistently.

3. Detailed outline numbering may be used as a method of varying the format of each heading. In detailed outline numbering, a section number is formed by an Arabic chapter numeral, a period, higher-level section numbers separated by periods, and finally the current subsection number. For example 3.2.4 denotes Chapter III, the 2nd section within Chapter III, and the 4th subsection within section 3.2.

4. Each level of heading must have a different format and the format of a particular level must be consistent (match) throughout the document. For example, 2nd level headings must match all other 2nd level headings but must be different from other level or sublevel headings. Headings may be centered or aligned with the left margin, or as required by the discipline. They may be plain text, boldfaced, italicized, underlined, or any combination of those 3 options. They may not be in a different font or font size or all capitals.

5. If the style guide requires it, headings may begin the first line of a paragraph instead of being on a separate line. Headings on the first line of a paragraph must be boldfaced, italicized, underlined, or some combination of the 3 in order to differentiate from the beginning of the paragraph.

6. Three levels of heading are shown on the sample pages. The word CHAPTER is considered the first level heading. All other headings within a chapter are considered subheadings. Each level has a different format:
   a. First level subheading – Chapter Title (not shown on example page, all capital letters)
   b. Second level subheading – example page: Methodology and Approvals
   c. Third level subheading – example page: Mitogens
   d. Fourth level subheadings – example page: Phytohemagglutinin (PHA), Concanavalin-A (Con-A)
Translucent cages were used to house mice in groups of five. The cages were fitted with stainless steel covers and contained San-i-cel® bedding.

Methodology and Approvals

Methods used in conducting this research were standard procedures that are currently implemented in the investigator’s laboratory. All procedures using animals were approved by the Institutional Animal Care and Use Committee.

Mitogens

RPMI-1640 medium to prepare mitogens did not contain heat-inactivated fetal calf serum, but did contain antibodies and L-glutamine.

*Phytohemagglutinin (PHA)*

“Leucoagglutinin,” highly purified extract from *Phaseolus vulgaris*, was obtained as a freeze-dried powder (Pharmacia Fine Chemicals, Piscataway, NJ). Each 5 mg vial was reconstituted by adding 5 ml of sterile distilled water and stored at 4°C. RPMI-1640 was used to dilute the PHA stock to the dose response optimum of 10.0 µg/ml prior to use.

*Concanavalin-A (Con-A)*

Con-A, an extract of the jack bean (*Concanalia ensiformis*), was obtained as a lyophilized product (Pharmacia Fine Chemicals, Piscataway, NJ) and stored at 4°C. Prior to use, Con-A was diluted with RPMI-1640 to a dose response optimum of 10 µg/ml prior to use. The final concentration 1.0 µg/well (0.1 ml/well).
Pages with Equations

1. Equal line spacing is maintained on pages with equations or symbols.

2. An equation editor should be used for more complex equations.

3. Equal signs should be vertically aligned when several equations appear on the page.

4. Important equations should be numbered consecutively throughout the chapter. Equation numbers should be right-justified. Equation numbers should be the chapter number and the sequential number of the equation, e.g., (4-1), (4-2), (4-3), etc.

Example

\[(3-1)\]

\[a + b - c (d \times e) = f\]
**Pages with Tables**

1. A standard font must be used throughout the document. Smaller fonts may be used within tables if needed. Boldface and italics may be used within tables (examples on page 42). Students should follow departmental requirements regarding the use of boldface and italics.

2. Tables may be numbered consecutively throughout the document (1, 2, 3, etc.) or consecutively within chapters (1.1, 1.2, 1.3, 2.1, 2.2, 2.3, etc.). Do not include a period after the table number and before the table title.

3. Tables should be centered horizontally on the page. Table numbers and titles appear above tables. Table numbers and titles may be centered (examples on pages 42 and 43) or left-aligned and blocked (example on page 44). Table numbers and titles may not be boldfaced, italicized, underlined or in all capital letters. All table titles must be formatted consistently throughout the document.

4. Tables more than ½ page long may be placed on a separate page (example on page 42). Unnecessary white space should be avoided where possible.

5. Tables less than ½ page long may be placed on the same page as text. One or two blank lines are left between the table number and text above. One or two blank lines are left between the table and text below (example on page 44). The same spacing should be used both above and below. Tables should have a top and bottom border, at a minimum (example page 43).

6. Tables that will not fit on 1 page may be continued onto subsequent pages with the continuation noted above the table on the next page (e.g. Table 5 continued).

7. Two or more short tables should appear on the same page to avoid unnecessary white space (example on page 45). Insert three or more blank lines between the two. A short, centered line may be placed between the two to further divide them.

8. Tables may be placed in landscape orientation. The page number must still be placed at the bottom center as though the page is in portrait orientation (example on page 46). The table number and title are oriented to the left, the binding side of the document (see example on page 46).

9. Tables may have superscript numerals or alphabetic symbols to designate footnotes. Superscript symbols may be smaller than the font size used in the document if they are easily readable (examples on pages 42-46). **All** information footnoted to a table must be designated with a superscript number or alphabetic symbol. The actual footnotes may be in a smaller font size if they are easily readable.
Table 18

Suppression\(^1\) on Old Male Lymph Node Cell Transformation by Mitomycin C Treated Splenic Cell Populations as Judged by Co-cultures\(^2\) in BXSB Mice

<table>
<thead>
<tr>
<th>Culture</th>
<th>Percent Suppression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\text{Exp. 1}^4)</td>
</tr>
<tr>
<td>Old male lymph node cells Female spleen cells(^3)</td>
<td>44.6</td>
</tr>
<tr>
<td>Old male lymph node cells Young male spleen cells(^3)</td>
<td>-3.6</td>
</tr>
<tr>
<td>Old male lymph node cells Old male spleen cells(^3)</td>
<td>0.0</td>
</tr>
<tr>
<td>Old male lymph node cells Female spleen cells PWM</td>
<td>28.9</td>
</tr>
<tr>
<td>Old male lymph node cells Young male spleen cells PWM</td>
<td>-259.6</td>
</tr>
<tr>
<td>Old male lymph node cells Old male spleen cells PWM</td>
<td>0.0</td>
</tr>
</tbody>
</table>

\(^1\) The percent suppression of old male lymph node cell transformation is calculated by the following equation:

\[
\% \text{ suppression} = 1 - \frac{\text{Mean CPM of old male lymph node cells cultured with female or young male spleen cells (with or without PWM)}}{\text{Mean CPM of old male lymph node cells cultured with old male spleen cells (with or without PWM)}}
\]

\(^2\) All cultures were pulsed with tritiated thymidine and the results were expressed as CPM. All results expressed in this table are given in percent values.

\(^3\) Ages of mice when sacrificed correspond to the following: females (controls) ten to twelve weeks, young males nine to ten weeks, and old males 19 to 21 weeks old.

\(^4\) The magnitude of suppression is reflected in large positive numbers. Negative values indicate potentiation of DNA synthesis.
Table 18

Suppression\(^1\) on Old Male Lymph Node Cell Transformation by Mitomycin C Treated Splenic Cell Populations as Judged by Co-cultures\(^2\) in BXSB Mice

<table>
<thead>
<tr>
<th>Culture</th>
<th>Exp. 1(^4)</th>
<th>Exp. 2</th>
<th>Exp. 3</th>
<th>Exp. 4</th>
<th>Exp. 5</th>
<th>Exp. 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female spleen cells (^3)</td>
<td>44.6</td>
<td>-3.5</td>
<td>-96.6</td>
<td>49.1</td>
<td>82.6</td>
<td>-23.6</td>
</tr>
<tr>
<td>Young male spleen cells (^3)</td>
<td>-3.6</td>
<td>-63.8</td>
<td>-149.8</td>
<td>24.4</td>
<td>40.2</td>
<td>-21.1</td>
</tr>
<tr>
<td>Old male spleen cells (^3)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Old male lymph node cells Female spleen cells PWM</td>
<td>28.9</td>
<td>-28.9</td>
<td>43.5</td>
<td>48.6</td>
<td>27.7</td>
<td>-11.4</td>
</tr>
<tr>
<td>Old male lymph node cells Young male spleen cells PWM</td>
<td>-259.6</td>
<td>-65.6</td>
<td>27.3</td>
<td>22.5</td>
<td>21.5</td>
<td>-12.5</td>
</tr>
<tr>
<td>Old male lymph node cells Old male spleen cells PWM</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

\(^1\) The percent suppression of old male lymph node cell transformation is calculated by the following equation:

\[
\text{% suppression} = 1 - \frac{\text{Mean CPM of old male lymph node cells cultured with female or young male spleen cells (with or without PWM)}}{\text{Mean CPM of old male lymph node cells cultured with old male spleen cells (with or without PWM)}}
\]

\(^2\) All cultures were pulsed with tritiated thymidine and the results were expressed as CPM. All results expressed in this table are given in percent values.

\(^3\) Ages of mice when sacrificed correspond to the following: females (controls) ten to twelve weeks, young males nine to ten weeks, and old males 19 to 21 weeks old.

\(^4\) The magnitude of suppression is reflected in large positive numbers. Negative values indicate potentiation of DNA synthesis.
In vivo examination of seven *L. monocytogenes* subgroup IIIA, IIIB, and IIIC strains (i.e., F2-458, XY-92, F2-086, and F2-208) in A/J mice indicates that six of these strains (all but X1-002) are capable of causing mouse mortality, as mice inoculated i.p. with these six strains died by day 5 postinfection, similar to those injected i.p. with the EGD control strain (Table 3).

**Table 3**

In Vivo Assessment of *Listeria monocytogenes* Virulence

<table>
<thead>
<tr>
<th>Strain</th>
<th>Serotype or Subgroup</th>
<th>CFU</th>
<th>Mortality (no. of dead mice) (n=5)</th>
<th>Relative virulence</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGD</td>
<td>1/2a</td>
<td>1 X 10⁸</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>HCC23</td>
<td>4a</td>
<td>8 X 10⁴</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F2-458</td>
<td>IIIA</td>
<td>1.2 X 10⁸</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>XY-92</td>
<td>IIIA</td>
<td>9 X 10⁴</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>F2-086</td>
<td>IIIB</td>
<td>1.1 X 10⁸</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>F2-208</td>
<td>IIIC</td>
<td>8 X 10⁴</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>None (saline control)</td>
<td>--</td>
<td>--</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ Each group contained five A/J mice. The dose (*L. monocytogenes* suspension) given to each mouse was diluted 1/200.

It has been shown previously that while *L. monocytogenes* strains harboring internalin gene lmo2821 tend to be virulent, those without this gene (e.g., serotype 4a strains) are avirulent in the mouse model. The results from this study offer further support that lmo2821 may contribute to the enhanced virulence of *L. monocytogenes* strains, with lmo2821-positive subgroup IIIA strains F2-458 and J2-074 being clearly virulent and lmo2821-negative subgroup IIIA strain X1-002 being avirulent.
Table 4  Suppression of Young Female Lymph Node Cell Transformation by Mitomycin C Treated Control Splenic Cells as Judged by Co-Cultures in MRL/Mp Mice

<table>
<thead>
<tr>
<th>TABLE DATA$^1$</th>
</tr>
</thead>
</table>

$^1$ The magnitude of suppression is reflected in large positive numbers. Negative values indicate potentiation of DNA synthesis.

Table 5  Microtiter Plate Co-Culture Data from Control (Non-SLE) and Old (SLE) MRL/Mp Mice

<table>
<thead>
<tr>
<th>TABLE DATA</th>
</tr>
</thead>
</table>
Approx. 1 inch of white space between the edge of the page and the page number.

The page number is centered on the left hand margin of the table which is the bottom of the page in the bound document.

A 1.5 inch margin is maintained at the top of the page (the binding side of the document) for tables in landscape orientation.

Suppression\(^1\) on Old Male Lymph Node Cell Transformation by Mitomycin C Treated Splenic Cell Populations as Judged by Co-cultures in BXSB Mice

<table>
<thead>
<tr>
<th>Culture</th>
<th>Percent Suppression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exp. 1</td>
</tr>
<tr>
<td>Old male lymph node cells Female spleen cells(^2)</td>
<td>44.6</td>
</tr>
<tr>
<td>Old male lymph node cells Young male spleen cells(^2)</td>
<td>-3.6</td>
</tr>
<tr>
<td>Old male lymph node cells Male spleen cells(^2)</td>
<td>0.0</td>
</tr>
<tr>
<td>Old male lymph node cells Female spleen cells PWM</td>
<td>28.9</td>
</tr>
<tr>
<td>Old male lymph node cells Young male spleen cells PWM</td>
<td>-259.6</td>
</tr>
<tr>
<td>Old male lymph node cells Male spleen cells PWM</td>
<td>0.0</td>
</tr>
</tbody>
</table>

\(^1\) The percent suppression of old male lymph node cell transformation is calculated by the following equation:

\[
\text{% suppression} = 1 - \frac{\text{Mean CPM of old male lymph node cells cultured with female or young male spleen cells (with or without PWM)}}{\text{Mean CPM of old male lymph node cells cultured with old male spleen cells (with or without PWM)}}
\]

\(^2\) Ages of mice when sacrificed correspond to the following: females (controls) ten to twelve weeks, young males nine to ten weeks, and old males 19 to 21 weeks old.


Pages with Figures

1. A standard font must be used throughout the document. Boldface and smaller fonts may be used within figures if needed (example on page 48). Students should follow departmental requirements regarding the use of boldface and italics.

2. Figures may be numbered consecutively throughout the document (1, 2, 3, etc.) or consecutively within chapters (1.1, 1.2, 1.3, etc.). Do not include a period after the figure number and before the figure title.

3. Figures should be centered horizontally on the page. Figure numbers and titles appear below figures. Figure numbers and titles may be left-aligned and blocked (example on page 46) or centered (example on pages 47). Figure numbers and titles may not be boldfaced, italics, underlined or in all capitals. All figures titles must be formatted consistently throughout the document.

4. Figures less than ½ page long may be placed on the same page as text (example on page 46). One or two blank lines are left between the figure and text above. One or two blank lines are left between the figure title and text below. The same spacing should be used both above and below.

5. Figures more than ½ page long may be placed on a separate page (example on page 47).

6. Two or more small figures should appear on the same page to avoid unnecessary white space. Insert three or more blank lines between the two. A short, centered line may be placed between the two to further divide them.

7. Figures may be placed in landscape orientation. The page number must be placed at the bottom center as though the page is in portrait orientation (example on page 48).

8. The page number is centered at the bottom.
The use of compound N260-XP has remarkable ability to enhance the resistance in a variety of mammals to specific bacterial infections. There was as much as a 30-fold increase in resistance to *Streptococcus mutans* in sheep. The effects of N260-XP are dose dependent and reach a plateau effect at a low concentration when injected intramuscularly (Figure 4.1).

![Figure 4.1](image)

**Figure 4.1** The effects of compound N260-XP to enhance resistance to specific bacterial infection in sheep.

Based on the results of the current study, further titration and dose response experiments are needed to determine the what concentration between 3.0 and 4.0 mg is best to use in sheep. These types of dose response curves would need to be conducted in various mammals and with different bacterial to determine whether the dose response is similar in a variety of mammals and for different bacterial organisms.
Is infection of chronic, recurring nature?

Yes  Run clinical serum panel

No  Immunodiagnostics not required at this time

γ-globulin within normal range

Leukocyte counts within normal range

Check cell-mediated immunity

Phenotype  Function

Figure 5.2

Diagnostic Laboratory Decision Making Training Networks
Pages with Footnotes

1. Footnotes may be smaller font size than the standard size used in the document. The font size used for footnotes must be consistent throughout the document.

2. To maintain equal line spacing, superscripts may be in a smaller font size.

3. A line using the underline function is used to separate the text from the footnotes.

4. Include 1 blank line (double-spaced) between footnotes.
In contrast, some studies suggest that sample size and/or error term adjustments render U.S. day-of-the-week effects statistically insignificant.\(^5\)

In spite of the increasing evidence concerning seasonal anomalies in security rates of return, pronounced gaps in the research on this topic exist. For example, unlike the considerable body of investigations into seasonal regularities in equity markets, few studies have examined this phenomenon in fixed income markets. Specifically, investigating daily return patterns in T-bills, Gibbons and Hess found Wednesday’s returns to be higher than those of any other day of the week, while Monday’s returns were lower.\(^6\) Furthermore; several researchers have investigated the January effect in various bond markets and have reached different conclusions. For example, Smirlock was able to identify the existence of this anomaly in low-grade corporate bonds. In a recent paper, indications of significant year-end effects in junk bond prices were also provided by Cooper and Shulman.

Virtually all of the existing research on seasonal anomalies in corporate bond returns has been confined to investment-grade bonds. As investment instruments, junk bonds became popular in the mid-1980s. Today many investors consider junk bonds to be part of a well-diversified portfolio primarily because of the hybrid nature of these

---


CHAPTER VI
THE REFERENCE MATERIAL

The reference material document consists of a required bibliography or list of references, and optional appendices.

Bibliography, References, List of References, etc.

Whether directly quoting a work or reference, a listing of the sources must be included in the document. The style of the discipline will dictate how citations are listed. (Sims Library has an online guide with information about many of the different styles in use around the University: [http://selu.libguides.com/citing](http://selu.libguides.com/citing).) The listing may appear at the end of each individual chapter and/or as a general listing at the end of the document. When a chapter is planned to be published as a stand-alone manuscript, the listing of references is usually located at the end of the chapter, for ease of future publication. Listing references at the end of the entire document is preferred if it does not conflict with discipline requirements.

Select one method and follow the appropriate instructions.

Reference List at End of Document

1. The first page should have a 2-inch top margin, a 1.5-inch left margin, a 1-inch right margin, and 1-inch bottom margin. All other pages should have a 1.5-inch left margin and 1-inch top, right, and bottom margins.

2. The page heading must be in all capitals and centered. One or two blank lines are left between the heading and the first entry. The wording of the heading (BIBLIOGRAPHY, REFERENCES, WORKS CITED, etc) is determined by the style used by the department. Common examples are shown on the sample pages.
3. Citation formatting is determined by the style used by the department; the appropriate style guide should be consulted. Some common citation styles are shown on pages 53 – 56.

4. Double space between each entry. Single-spacing is used within entries.

5. Page numbers are centered at the bottom.

Reference List at End of Chapter

1. The first page should have a 2-inch top margin, a 1.5-inch left margin, a 1-inch right margin, and 1-inch bottom margin. All other pages should have a 1.5-inch left margin and 1-inch top, right, and bottom margins.

2. Start the reference materials on a new page rather than on the same page as the last line of the chapter.

3. The format and wording of the heading is determined by the style used by the department.

4. Citation style is determined by the style used by the department. The appropriate style guide should be consulted.

5. Double space between each entry. Single-spacing is used within entries.

6. Page numbers are centered at the bottom.
REFERENCES CITED


BIBLIOGRAPHY


REFERENCES


Appendices

Reference materials that are not absolutely necessary to the text are often grouped in an appendix or in appendices. If used, an appendix generally follows immediately after the last chapter of the text. However, the bibliography or references may precede the appendix.

Each appendix is preceded by a divider sheet identifying the appendix by letter and including the title of the appendix. All text should be centered horizontally and vertically on the page. If the title requires more than 1 line, the title should appear in inverted-pyramid order.

If the information to be appended dictates more than 1 appendix, the multiple appendices are designated APPENDIX A, APPENDIX B, etc. Each appendix with its title must be listed separately in the table of contents as a subdivision under the heading APPENDIX or APPENDICES.

Tables or figures appearing in an appendix are identified as tables or figures, are numbered consecutively, and appear in the list of tables or figures in the preliminary pages. Appendix tables or figures may be identified by the letter of the appendix and respective table or figure number. For example, a table in Appendix C may be identified as Table C.1.

Each appendix must have an appendix divider (title) page formatted as follows:

1. All text on the appendix divider (title) page is page centered (both vertically and horizontally). The left margin should be 1.5 inches. The right margin should be 1 inch.

2. The word APPENDIX in all capital letters appears on the first line. If more than one appendix is used, they should be designated as APPENDIX A, APPENDIX B, etc.
3. One blank line is left between the word APPENDIX and the appendix title.

4. The appendix title is typed in all capital letters. If the title is longer than 1 line, double space between the lines of the title and the lines are arranged in inverted-pyramid style.

5. The page number is centered at the bottom.

The appendix contents are formatted as follows:

1. Margins for appendix pages should be identical to text pages, i.e., 1.5-inch left margin and a 1-inch margin on top, right, and bottom.

2. Tables and figures must be numbered. Tables and figures must be included in the List of Tables and List of Figures.

3. Appendices frequently include material such as IRB letters, computer code, or surveys that cannot be reformatted. Such material may be single spaced and may use a different font than the rest of the document.

4. The page number is centered at the bottom. An example is on the following page.
APPENDIX A

DATA ON HURRICANES BEGINNING IN THE ATLANTIC BASIN AND REACHING THE NORTH AMERICAN CONTINENT

FROM 1928 THROUGH 1933
CHAPTER VII
SUBMISSION OF THESIS OR DISSERTATION

Deadlines for submission of documents for review by Sims Library staff are published on the Graduate Studies web site and the Graduate Studies 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. If possible, students are encouraged to submit the thesis/dissertation for format review prior to the deadline. To meet the first submission deadline (the first review of the document), the student must submit a complete copy of the document, including a photocopy of the committee approval page with all signatures in place. Partial documents will not be accepted. To meet the final submission deadline (a document that has been reviewed and given approval pending all corrections are made), the student must have made all corrections, completed all forms, paid all thesis or dissertation fees, submitted cotton copies for binding, and uploaded a corrected copy to ProQuest. The following is the sequence from first submission of the thesis or dissertation to Sims Memorial Library to final submission of the electronic version to ProQuest:

1. Submit one paper copy of the thesis or dissertation to the Sims Memorial Library (Room 241). Do not print the copy for review on cotton paper, use inexpensive copy / print paper. A copy of the committee approval page, complete with required signatures, must accompany the thesis or dissertation before it will be accepted for review. The student will be notified when the formatting review is complete and, if necessary, will receive a list of corrections to be made.

3. Correct all formatting errors and, if necessary, submit corrected copies to Sims
Memorial Library (Room 241) for subsequent reviews until final approval is granted. It's not uncommon for two to four reviews to be completed before approval is granted.

4. Once approval has been granted, complete the Library binding form (the forms can be located on the Graduate Studies website). Pay the binding fee at the Controller’s Office. The form and the binding fee payment receipt must be submitted to Sims Memorial Library when the thesis or dissertation is submitted for binding.

5. Provide two cotton copies (25% cotton, 20lb. paper), and any additional copies on plain paper up to a total of eleven (11) copies, to Sims Memorial Library (Room 241). One of the cotton copies must include the original committee approval page. All copies must be binding-ready with all pages present and in the correct order. Insert a colored sheet of paper between each copy of the dissertation or thesis. The binding receipt from the Controller’s Office must reflect payment for all copies to be bound.

6. The final process requires submission of the thesis or dissertation in electronic form to the UMI ETD Administration site (ProQuest).

Submission to ProQuest involves the following steps:

1. The Southeastern Louisiana University web site address to access the ETD database is [www.etdadmin.com/selu](http://www.etdadmin.com/selu).

2. Select “submit” under the student or “Ready to begin?”

3. Enter the authentication information and create an account (or log in if an account has already been created). Remember the account information; no one else can retrieve user IDs and/or passwords.
4. Complete the online forms using the spelling, punctuation, and capitalization that will create the desired appearance in the Electronic Thesis and Dissertation database.

5. Choose “Browse” to locate the needed files, select one file at a time.

7. Choose “Upload Files” to copy the files onto the ETD server.

If there are formatting or other submission errors a correction list will be sent to the student via email. The student must return to the original word processing document, correct errors, recreate the PDF file, and resubmit via the ETD database. An email will be sent to the student after all requirements have been satisfied and the thesis or dissertation has been accepted for electronic submission.

While the student retains copyright, the student may choose to have Proquest register the copyright with the United States Copyright Office. The optional copyright fee pays for ProQuest to file an application of claim of your copyright with the United States Copyright Office. For more information about copyright, see: 


http://www.copyright.gov/. All fees are the responsibility of the student.
APPENDIX A

ACCEPTABLE VARIANCES FOR FORMATTING

FOR CREATIVE WRITING THeses
THESS FORMATTING FOR CREATIVE WRITING CONCENTRATION

Creative Writing theses are not divided by conventional chapters (since novels and extended non-fiction works are not accepted), and thus will not set up their Table of Contents and section divisions according to the standard guidelines supplied by the Department of English or described in this document. Instead, Creative Writing theses will provide a basic numbering of elements for their Table of Contents. Subordinate elements (such as scenes within a one-act play, poems that are part of a sequence, divisions within a long story) may be listed in the Table of Contents by name and page number under the appropriate section but not numbered. On title pages for individual elements corresponding numbers should appear above the title. Other elements, (artist’s statement or theoretical introduction, works cited) may be included in the thesis and presented in the Table of Contents in standard format. Creative works must have an abstract that adheres to the same formatting as typical theses. See the example on the following page.
[Example: poems, stories, or plays without subdivisions. Elements such as a dedication, acknowledgements, introduction, afterword, and works cited are optional for creative works theses.]

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>iv</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>v</td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>2</td>
</tr>
<tr>
<td>II. TEA LEAVES</td>
<td>3</td>
</tr>
<tr>
<td>III. KNOTS</td>
<td>4</td>
</tr>
<tr>
<td>IV. METAL WORKING</td>
<td>5</td>
</tr>
<tr>
<td>V. BIRTHDAY CARD</td>
<td>7</td>
</tr>
<tr>
<td>VI. CAFÉ BLUES</td>
<td>9</td>
</tr>
<tr>
<td>VII. STREET LAMP</td>
<td>10</td>
</tr>
<tr>
<td>VIII. SOGGY HOMES</td>
<td>13</td>
</tr>
<tr>
<td>IX. GO AHEAD</td>
<td>17</td>
</tr>
<tr>
<td>X. ELEGANT DANCE</td>
<td>19</td>
</tr>
<tr>
<td>XI. WHEN SPLITTING OAK</td>
<td>22</td>
</tr>
<tr>
<td>XII. SPIDERS AND DRAGONS</td>
<td>25</td>
</tr>
<tr>
<td>XIII. THINKING OF YOU—A CONFESSIONAL</td>
<td>29</td>
</tr>
<tr>
<td>XIV. WHILE STANDING IN LINE FOR PIZZA</td>
<td>33</td>
</tr>
<tr>
<td>XV. ASTROLOGICAL RUST</td>
<td>36</td>
</tr>
<tr>
<td>WORKS CITED</td>
<td>42</td>
</tr>
</tbody>
</table>
APPENDIX B

FORMATTING OF HEADINGS APPROVED FOR EDD STUDENTS
There are five heading levels in APA. *The 6th edition of the APA manual revises and simplifies previous heading guidelines.* Regardless of the number of levels, always use the headings in order, beginning with level 1. The exception is that bold font is not used in the dissertation at Southeastern. Therefore, the format of each level is as follows:

<table>
<thead>
<tr>
<th>Level</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centered, Uppercase and Lowercase Headings</td>
</tr>
<tr>
<td>2</td>
<td>Left-aligned, Uppercase and Lowercase Heading</td>
</tr>
<tr>
<td>3</td>
<td>Indented, lowercase heading with a period.</td>
</tr>
<tr>
<td>4</td>
<td><em>Indented, italicized, lowercase heading with a period.</em></td>
</tr>
<tr>
<td>5</td>
<td><em>Indented, underlined lowercase heading with a period.</em></td>
</tr>
</tbody>
</table>

An example of the headings in this format is presented below. Note that the chapter number and the title of the chapter are all caps and centered and are not considered a header level for the purposes of the dissertation only.

**CHAPTER IV**

**RESULTS**

Description of Research Sample (Level 1)

Schools (Level 2)

High poverty, low performing schools. (Level 3)

*Unique descriptors.* (Level 4)

Exceptions for consideration. (Level 5)