

Format Guidelines for Electronic Thesis and Dissertation Preparation at the University of Pittsburgh

Office of the Provost
University of Pittsburgh

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INTRODUCTION

This manual sets forth the University of Pittsburgh's requirements for the preparation and electronic submission of graduate theses and dissertations. Individual departments or schools of the University may have additional, or more specific, requirements. It is the student's responsibility to learn of any special requirements that apply and to prepare the dissertation or thesis in accordance with them as well as with the instructions in this manual.

While the thesis or dissertation is generally the work of the degree candidate alone, if it is the result of a collaborative research effort, the contributions of the student and the other collaborators must be clearly delineated.

The scholarly work done by the student prior to the final preparation of the thesis or dissertation is outside the province of this handbook. It is assumed that once the research is complete, a final draft is examined and approved by the thesis/dissertation director and/or the candidate's thesis/dissertation committee. At that point, the student is ready to prepare a document for final submission. (For information on the scholarly requirements of theses and dissertations, see the University's *Graduate and Professional Bulletin* and consult with the thesis/dissertation director.)

The language in which theses and dissertations are written shall normally be English. Exceptions may be granted by the student's dean with the approval of the thesis/dissertation director and committee but only for sound reasons of scholarship. Permission shall never be granted on the ground of inadequate command of English. This manual also assumes that every thesis or dissertation will demonstrate effective communication skills. It is the responsibility of the student that

the thesis or dissertation demonstrate clarity, correctness, and organization. A student may use the assistance of a professional editor if he or she receives the prior approval of the research advisor; the editorial assistance is limited to the use of language and not to subject matter content or meaning; and all editorial assistance is acknowledged in the preface of the final document.

Of crucial importance to each thesis or dissertation is the issue of legibility. It is especially important that doctoral dissertations have good quality illustrations and sufficiently dark print to microfilm legibly. Color will not microfilm legibly. Therefore, when including photographs, students should place a black-and-white photo in the body of the dissertation and include a link to a file containing the color image. However, since the PDF copy of the ETD is also archived by University Microfilms, Inc., a division of Bell & Howell, students may include color within their ETD if they decide that the benefits of color in the ETD outweigh the problems caused with microfilming color. For more information, see the section on [TABLES AND FIGURES, Preparation, Item #3](#).

Characteristics that a dissertation should demonstrate are:

- the establishment of a historical context for the presentation of an innovative and creative approach to the problem analysis and solution;
- a clear understanding of the problem area as revealed by analysis and synthesis of a broad literature base;
- a well-defined research design;
- clarity in composition and careful documentation;
- results of sufficient merit to be published in refereed journals or to form the basis of a book or monograph; sufficient detail so that other scholars can build on it in subsequent work;
- the preparation of the author to assume a position within the profession.

After the dissertation has been submitted in final form to the approved office in the student's school or department, it is forwarded to University Microfilms, Inc., which publishes the abstract in *Dissertation Abstracts International*, microfilms the entire dissertation, and stores it electronically. The microfilm copy is the official archival record of the dissertation.

Questions regarding thesis or dissertation format that are not answered in this manual should be directed to the appropriate office in the student's school or department. It may be necessary to check with University Microfilms, Inc., about any deviations that might hinder their ability to reproduce dissertation material. See their website, *Guidelines for Submission of Dissertations and Masters' Theses in Electronic Format*: http://wwwlib.umi.com/dissertations/about_etds/

Students may find it appropriate to consult a style manual published by the professional society of their field of study, such as the *Publication Manual* of the American Psychological Association, *Scientific Style and Format: The CBE Manual* published by the Council of Biology Editors, *The Chicago Manual of Style*, or the *American Institute of Physics Editorial Handbook*. A student's advisor will identify the correct manual or guide to be used in determining footnote and bibliographic format for a given discipline or subject area. If points in any of the specialized style manuals differ markedly from the requirements for margins, format, etc. stipulated in this manual, the latter takes precedence.

Some basic guidelines for thesis and dissertation preparation are revised frequently and should be widely available in paperback in most bookstores: the *MLA Handbook for Writers of Research Papers* (1999), by Joseph Gibaldi, published by the Modern Language Association; and *A Manual for Writers of Term Papers, Theses, and Dissertations* (1996), written by Kate L. Turabian and published by the University of Chicago Press.

Students should contact the appropriate office in their school or department for details on the procedures and deadlines for submitting completed theses and dissertations.

FINAL PREPARATION PROCEDURES

SUBMISSION OF ELECTRONIC AND PAPER DOCUMENTS

Master's thesis

Students must submit one electronic document prepared according to the specific requirements on the following pages via the ETD Online System at http://etd.library.pitt.edu/ETD-db/index_author.html.

Students also submit the following paper documents to their graduate school:

- one paper copy of the Title Page,
- one copy of the Abstract,
- one completed and signed ETD Approval Form. The ETD Approval Form must include minimally the signature in black ink and typed name of the thesis advisor. Alternatively, it may include the typed names, academic ranks, and department affiliations of all committee members and their signatures in black ink.

This material becomes the property of the University. The student's school or department may require additional copies. Please refer to the checklist at the end of this document (and reproduced on the third page of the ETD Approval Form) for a complete list of all materials that must be submitted before the school can give final approval of the thesis.

Doctoral dissertation

Students must submit one electronic document prepared according to the specific requirements on the following pages via the ETD Online System at http://etd.library.pitt.edu/ETD-db/index_author.html.

Students also submit the following paper documents to their school's graduate office:

- two paper copies of the Title Page,
- two paper copies of the Abstract. The Abstract must be initialed in the upper right-hand corner in black ink by the student's dissertation director.
- one completed and signed ETD Approval Form. The ETD Approval Form must include minimally the typed names of the committee members and dissertation director and the signature of the dissertation director. Alternatively, it may include the typed names, academic ranks, and department affiliations of all committee members and their signatures in black ink.

These materials become the property of the University. The student's school or department may require additional copies. Please refer to the checklist at the end

of this document (and reproduced on the third page of the ETD Approval Form) for a complete list of all materials that must be submitted before the school can give final approval of the dissertation.

ACCEPTABLE ELECTRONIC AND PAPER FORMATS

Electronic File Formats

The body of the text must be in Adobe's Portable Document Format (.pdf). PDF allows documents created through word processing to be made available on the Web with the freely available Acrobat Reader software. PDF also retains all formatting and graphics and allows hyperlinks, bookmarks and thumbnails. In addition, Adobe Acrobat files can be indexed and searched by keywords.

The following additional file types are permitted and supported by University Microfilms, Inc. division for electronic dissertations:

- Image files as .gif, .jpeg, or .tif;
- Video files as .mov, .mpg, or .avi;
- Audio files as .aif, .midi, .snd, .wav, or as CD-DA, CD-OM/XA, or MPEG-2 .

Additional files should always use the highest resolution version of the object, not just a version suitable for today's devices, since technology will improve. The thesis or dissertation can include more than one version of the object, to help those with a variety of devices, particularly if the medium itself is not scalable (for example, a slide scanned at 2700 dpi, with 640 × 480 and 320 × 240 versions as well).

If proprietary software is used, the thesis or dissertation must include a viewer if the vendor permits, to allow readers to view the file(s) without purchasing additional software. Use of proprietary software is discouraged, since over time this file may not be readily usable due to changes in versions and technology. All theses or dissertations using proprietary software must be accompanied by written permission from the owner of the software for its use in this thesis or dissertation.

Paper copies (if required by school or department)

Offset printing, laser printing, photocopying, or any other process that produces a sharp, black image on white bond paper is acceptable for paper copies. The paper must be of at least 20-pound weight and must be $8\frac{1}{2}$ " \times 11" size.

DOCUMENT PREPARATION

Print

1. All theses and dissertations must follow the requirements outlined in this manual. Any deviations from the forms outlined in this manual must be approved in writing by the appropriate office in the school or department before the document is prepared in final form.
2. Text must be set in 10 points or larger type size and of a fully legible font. Script fonts are not acceptable. Prior to final submission of theses or dissertations, students are advised to consult the appropriate office in their school or department to determine whether their files will meet University standards of legibility and will reproduce clearly on microfilm.

Pagination

1. Each page must be numbered, with the exception of the Title Page, which counts as page i but does not show a number.
2. The preliminary pages—including the Committee Membership Page, the Copyright Page, the Abstract, the Table of Contents, lists of tables and illustrations, and the Preface—should be numbered with small Roman numerals (ii, iii, iv, etc.) centered 0.5" (one-half inch) from the bottom edge of the page. Preliminary pagination begins with ii; the Title Page counts as i, but the number does not appear.
3. All remaining pages—including text, illustrations, appendices, and bibliography—carry consecutive Arabic numerals (1, 2, 3, etc.). The page number

should be centered 0.5” from the bottom edge of the page. No punctuation is used with page numbers.

Margins

1. The top, bottom, left, and right margins should be 1 inch. Tables and figures use the same margins as text. The student’s school or department must give written approval for exceptions to margin size.
2. Bad line breaks must be avoided. A subheading at the bottom of a page should be followed by at least two full lines of type. If space does not permit two lines plus a 1” margin, the subheading should begin the next page. Similarly, a new paragraph toward the bottom of a page should run for at least two lines or be started on the next page. The final few words of a paragraph should not be continued on the next page. At least two full lines of type are required to continue a paragraph on the next page.

Spacing

The text of the document may be double-spaced or one-and-one-half spaced with the exception of long quotations, footnotes, bibliographical references, and the index, which may be single-spaced. See one of the recommended style manuals for illustrations and examples (see also [Footnotes and bibliography](#)).

Centering

When the instructions call for “centering” a heading, title, or other element, the material is to be centered between the left and right margins.

Footnotes and bibliography

1. Citation forms may vary among disciplines, but whichever form is adopted should be used consistently. Style manuals from specific professional associations or journals will usually provide the appropriate format. If none is

specified, the student should use a format recommended and illustrated in one of the general manuals noted above in the [INTRODUCTION](#).

2. Footnotes may appear either on the page on which they are cited or at the conclusion of the manuscript, depending on the practice of the discipline or department. If no format is specified, either style is acceptable, but same-page citation is a particular convenience to readers of electronic documents and microfilm.
3. Depending on the requirements specified in the style manual preferred by the school or department, theses and dissertations may or may not have a footnote section. However, all theses and dissertations will have a Bibliography. (See [REFERENCE MATERIAL](#), below.)

TABLES AND FIGURES

Definitions

1. The word “table” is used for tabulated numerical data in the body of the thesis or dissertation and in the appendices.
2. The word “figure” designates all other illustrative material used in the body and in the appendices, including graphs, charts, drawings, images, diagrams, schematic illustrations of experimental apparatus, etc.

Preparation

1. Tables and figures must be computer-generated or scanned at a minimum of 600 dpi. They must be legible and reproducible on microfilm.
2. Images and oversized pages should, if possible, be reduced to standard $8\frac{1}{2}$ ” \times 11” size; however, page numbers and captions must be the same size as the rest of the text (not reduced). Oversized pages will not print properly with the rest of the document; if oversized pages are important to the dissertation, they should be created as separate files linked to the text. All separate files must be captioned in accordance with these guidelines.

3. Because the archival copies of dissertations are stored on microfilm by University Microfilms, Inc., and on microfilm most colors appear as grey, non-digital photographs should be scanned from black and white photographic originals or from well-done black and white photographic copies of the originals. To minimize loss of content, crosshatching or other markings may be necessary to indicate color distinctions in dissertations. Digitized color photographs may be included as separate files; links to these files must be included in the body of the ETD, minimally in the List of Figures and at the appropriate point or points in the text. (See [REFERENCE MATERIAL: Appendices](#).) However, since the PDF copy of the ETD is archived by University Microfilms, Inc. as well, students may include color within their ETD if they decide that the benefits of color in the ETD outweigh the problems caused with microfilming color.
4. Because the archival copies of theses are stored on microfilm by the University Library System and on microfilm most colors appear as grey, non-digital photographs should be scanned from black and white photographic originals or from well-done black and white photographic copies of the originals. To minimize loss of content, crosshatching or other markings may be necessary to indicate color distinctions in dissertations. Digitized color photographs may be included as separate files; links to these files must be included in the body of the ETD, minimally in the List of Figures and at the appropriate point or points in the text. (See [REFERENCE MATERIAL: Appendices](#).) However, since the PDF copy of the ETD is archived by the University Library System as well, students may include color within their ETD if they decide that the benefits of color in the ETD outweigh the problems caused with microfilming color.
5. Photograph images must conform to the margin specifications. Page numbers and captions must appear in the required locations.

Placement

1. Tables and figures of a half-page or less in length may appear on the same page with the text, separated from the text above or below by triple spacing.

If they exceed a half-page in length, they should be placed on a separate page. Two or more small tables or figures may be placed on a single page.

2. Table numbers and captions are placed two spaces above the top line of the table.
3. Figure numbers and captions are placed two spaces below the last line or bottom edge of the figure.
4. The placement of the table or figure does not affect the position of the page number. (See [Pagination](#), above.)

Numbering

1. Tables and figures are numbered in separate series. Each table and figure, including any in the appendices, has a number in its own series. Each series is numbered consecutively in Arabic numerals, e.g., Figure 10, Figure 11, Figure 12, etc.; or within chapters, e.g., Figure 10.1, Figure 10.2, Figure 10.3, etc.
2. If a table continues to the following page, the top line should read “Table 10 (continued).” The caption is not repeated.

Captions

1. Captions, or descriptive titles of tables and figures, should be kept to one line if possible.
2. These captions will appear in the preliminaries as the List of Tables or List of Figures, as well as in the bookmarks panel. (See [List of Figures](#) and [List of Tables](#) below.)

Citations

When referring to a table or figure in the text, the full word and number should be used, e.g., Table 10 or Figure 6.

ARRANGEMENT OF CONTENTS

Every thesis or dissertation has three parts: the preliminary material, the text, and the reference material. Each part has several sections, which are normally arranged in the order they are discussed below.

PRELIMINARIES

Title Page

1. The title appears in English in capital letters. Words should be used in place of formulas and symbols in the title. The author's name appears in full followed by a listing of earlier schools and degrees. See Figure 1 as an example.
2. The submission statement names the school (and optionally the department), the degree sought, the University's name, and the year. See Figure 1.
3. One printed paper copy of the Title Page must be submitted with the thesis and two printed paper copies of the Title Page must be submitted with the dissertation.

Committee Membership Page

1. For theses, the Committee Membership Page must include minimally the name of the thesis director. Alternatively, the names, academic ranks, and department affiliations of all committee members may be included. See Figure 2 as an example. (In case only the advisor is listed, the text "and approved by" is also to be omitted.)
2. For dissertations, the Committee Membership Page must include minimally the names of the committee members and dissertation director. Academic ranks and department affiliations may be included. See Figure 2.
3. The Committee Membership Page is numbered with small Roman numerals centered 0.5" from the bottom edge of the page.

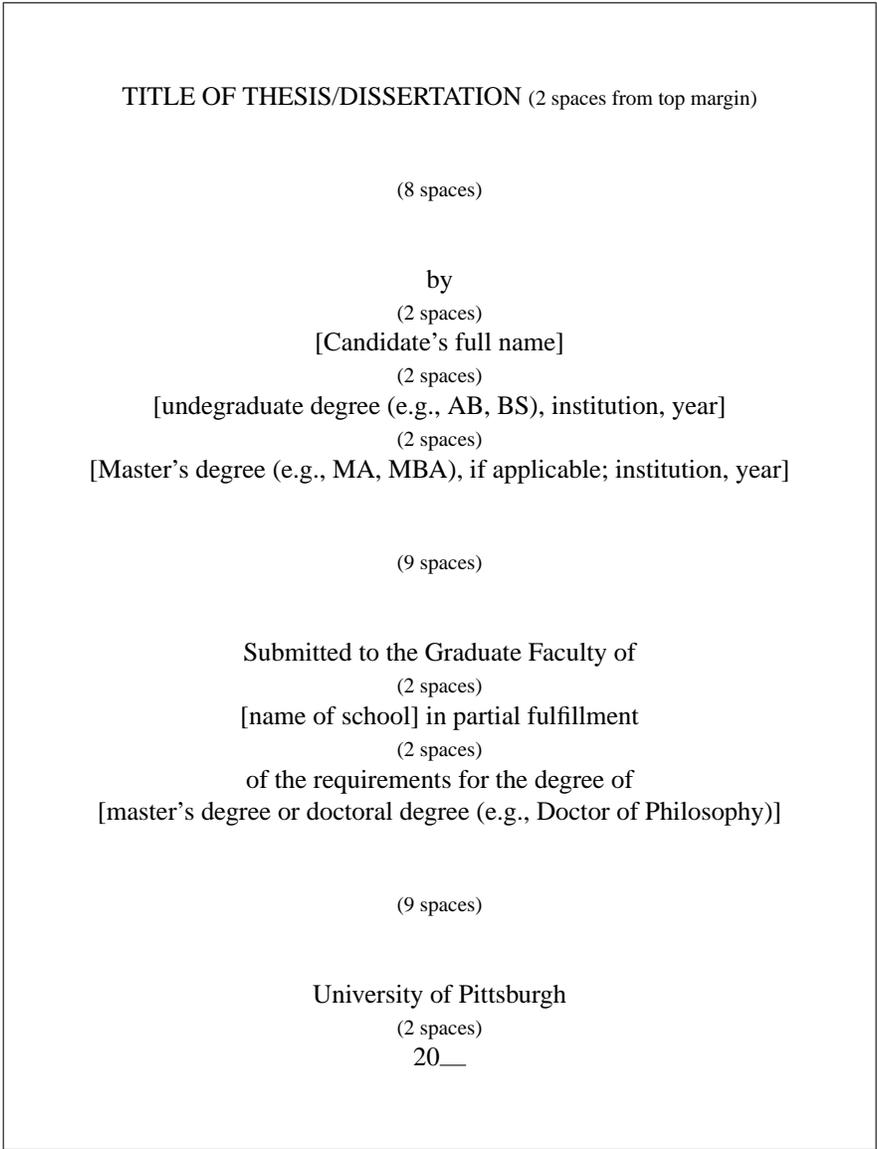


Figure 1: Example of Title Page

Copyright Page

1. Copyright privileges vest immediately upon creation of the work, without the requirement of notice or registration. Copyright notice and registration are optional for all theses and dissertations. However, a copyright notice on a dissertation or thesis signals to readers that the author holds the copyright. Registration establishes a public record of the copyright. For U.S. publications, registration is required before an infringement lawsuit can be filed.

There may be unusual complications in claiming ownership of copyright. For instance, some funding sources claim ownership of the resulting copyright. If the dissertation has been published elsewhere, the copyright may have been assigned to the publisher.

The pamphlet *Copyright Law and the Doctoral Dissertation: Guidelines to Your Legal Rights and Responsibilities* by Kenneth D. Crews and published by University Microfilms, Inc. gives more detailed advice. It is available in hard copy in the Office of the Provost or from University Microfilms, Inc., and in a version on the World Wide Web: <http://www.umi.com/hp/Support/DExplorer/copyright/>

If a copyright notice is desired, it should appear on a page immediately following the Committee Membership Page, and numbered 'iii,' with the following text:

Copyright by [Name of Author]
20__ [year of publication]

2. If registration is desired for a dissertation, doctoral candidates should consult the University Microfilms, Inc. instruction sheet for information on copyright procedures, which may be done individually or through University Microfilms, Inc. Copyright and reprint fees are subject to change. Students should obtain current copies of the instructions and agreement forms through the office of their dean or director of graduate studies.
3. Master's theses may be registered directly with the U.S. Copyright Office by the author by calling (202) 707-9100 to request a registration application.

UNIVERSITY OF PITTSBURGH (2 spaces from top margin)
(2 spaces)
[NAME OF SCHOOL]

(8 spaces)

This [thesis/dissertation] was presented
(2 spaces)
by
(3 spaces)
[Candidate's full name]
(3 spaces)

It was defended on
(2 spaces)
[Month Date], 20___
(2 spaces)
and approved by
(2 spaces)
[Committee member's name, Academic rank, Department affiliation]
(2 spaces)
[Committee member's name, Academic rank, Department affiliation]
(2 spaces)
[Committee member's name, Academic rank, Department affiliation]
(2 spaces)
[Thesis Advisor/Dissertation Director]: [name, Academic rank, Department
affiliation]

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Figure 2: Example of Committee Membership Page

4. Inclusion of copyrighted materials in a dissertation requires that the student obtain a letter from the copyright owner authorizing use of the materials. The letter must also state that the copyright owner is aware that University Microfilms, Inc. will microfilm the dissertation and may sell copies of it on demand. One copy of each copyright permission letter must be submitted with the dissertation in order for it to be accepted by University Microfilms, Inc. For guidelines on the use of printed, archival, and electronic sources in a research publication see the University Library System's "Copyright Information" webpage at <http://www.library.pitt.edu/guides/copyright/>).

Abstract

1. An Abstract written in English and no more than 350 words in length must appear immediately before the Table of Contents in all master's theses and doctoral dissertations. It should be prepared in accordance with the specifications set forth in the instructions issued by University Microfilms, Inc., available to students through the office of their dean or director of graduate studies. The dissertation abstract will be published in Dissertation Abstracts.
2. The Abstract should state briefly the problem discussed in the thesis or dissertation, describe the research procedures or methodology, and summarize major findings and conclusions. The Abstract should not include illustrative materials or tables.
3. The title of the thesis/dissertation should appear in capital letters and centered at the top of the Abstract 2 inches from the top edge of the page. The student's name followed by the degree is centered two spaces below the title. University of Pittsburgh and the date are centered two spaces below the name. The text of the Abstract begins at the left margin three spaces below the name of the University and the date. Figure 3 is a sample heading of the abstract.

TITLE OF THESIS/DISSERTATION (2" from top edge of page)
 (2 spaces)
 [Author's name], [abbreviation of degree, (e.g., PhD)]
 (2 spaces)
 University of Pittsburgh, 20__
 (3 spaces)

[Text of Abstract]

.....

Figure 3: Example of Abstract Form

- 4. The thesis/dissertation director indicates approval by signing or initialing the upper right-hand corner of the paper copies of the Abstract.

Table of Contents

- 1. The heading TABLE OF CONTENTS is centered 2 inches from the top edge of the page. The actual listing begins at the left margin four spaces below the heading.
- 2. All material following the Table of Contents is listed, with the exception of lists of tables and figures which are listed separately. (See [List of Tables](#) and [List of Figures](#), following.) Material that precedes the Table of Contents (e.g., Title Page, Committee Membership Page, etc.) is not listed.
- 3. The titles of chapters are listed in the Table of Contents, as well as those of all subdivisions. See examples of two types of Tables of Contents in [Figures 4](#) and [5](#), corresponding to two types of chapter and section numbering. (See [Chapters and divisions](#) below.)

4. Indentation in the Table of Contents reflects the level of each division, as shown in Figures 4 and 5.
5. Wording, spelling, capitalization, and punctuation in the Table of Contents must be identical to that of the actual titles in the body of the thesis or dissertation.
6. Table of Contents pages are numbered with small Roman numerals centered 0.5” from the bottom edge of the page.
7. In the PDF file, each entry in the Table of Contents must appear as a bookmark leading to the appropriate point in the body of the text. For more information on creating bookmarks in PDF files, consult the online PDF training site (select “training” at <http://www.pitt.edu/~graduate/etd>) or ask for assistance at a Campus Computing Lab.

List of Tables

1. The heading LIST OF TABLES is centered without punctuation 2 inches from the top edge of the page. The listing of tables begins at the left margin four spaces below the heading.
2. If possible, wording, spelling, capitalization, and punctuation in the List of Tables should be identical to that of the captions that appear on the tables in the text.
3. The List of Tables pages are numbered with small Roman numerals centered 0.5” from the bottom edge of the page.
4. In the PDF file, each entry in the List of Tables appear as a bookmark leading to the appropriate point in the body of the text. For more information on creating bookmarks in PDF files, consult the online PDF training site (select “training” at <http://www.pitt.edu/~graduate/etd>) or ask for assistance at a Campus Computing Lab.

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Figure 4: Example of Table of Contents

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Figure 5: Example of Table of Contents

List of Figures

1. The heading LIST OF FIGURES is centered without punctuation 2 inches from the top edge of the page. The listing of figures begins at the left margin four spaces below the heading.
2. If possible, wording, spelling, capitalization, and punctuation in the List of Figures should be identical to that of the captions that appear on the figures in the text.
3. The List of Figures pages are numbered with small Roman numerals centered 0.5” from the bottom edge of the page.
4. In the PDF file, each entry in the List of Figures appear as a bookmark leading to the appropriate point in the body of the text. For more information on creating bookmarks in PDF files, consult the online PDF training site (select “training” at <http://www.pitt.edu/~graduate/etd>) or ask for assistance at a Campus Computing Lab.

Preface

1. The Preface is optional and, if used, should be brief. Acknowledgments in the form of a brief statement of appreciation for special assistance or support, including research and editorial assistance, should be included in this section.
2. Preface pages are numbered with small Roman numerals centered 0.5” from the bottom edge of the page.

TEXT

Chapters and divisions

1. Each chapter starts in a new page, with the heading in capital letters centered 2 inches from the top edge of the page. The text starts four spaces below the heading.

2. Section headings are centered and written in capital letters, separated by four spaces from the text above and two from the text below.
3. Subsection headings appear at the left margin, not indented, separated by two spaces from the surrounding text.
4. Headings of the fourth level appear at the left margin, not indented, separated by two spaces from the text above. The text starts in the same line as the heading itself.
5. The first paragraph after headings of levels 1-3 should not be indented.
6. The divisions are numbered according to one of two possible schemes:
 - a) Arabic numbers separated by period(s). The particle '.0' (period-zero) is appended chapter numbers: 1.0 FIRST CHAPTER, 1.1 FIRST SECTION, 1.1.1 First subsection, 1.1.1.1 First sub-subsection.
 - b) A combination of numerals and letters, and omitting the numbers of higher divisions: I. FIRST CHAPTER, A. FIRST SECTION, 1. First subsection, a. First sub-subsection. However, references within the text to other sections or subsections should include the whole set of numbers, as in "See subsection I.A.3."

Introduction

1. If the Introduction precedes the first chapter or division as a separate unit, the heading INTRODUCTION should be centered 2 inches from the top edge of the page. The text begins four spaces below the heading.
2. If the Introduction is the opening statement of the first chapter or division, the chapter title should be centered 2 inches from the top edge of the page and INTRODUCTION used as the first subheading.
3. The page on which the Introduction begins is page 1 of the thesis or dissertation.

Main Body

1. This section is the substance of the thesis or dissertation, including all chapters, divisions, and subdivisions as indicated by headings and subheadings identical to those listed in the Table of Contents.
2. All tables and figures should be placed as close as possible to the text they illustrate.
3. Most schools and departments at the University of Pittsburgh prefer that the thesis or dissertation be written as a coherent whole. However, published material authored by the student and based on research conducted for the study may be included if the student's department and school have a written policy indicating their acceptability. Published journal articles or a section prepared in a journal format may be included either in the body of the document or in the appendix. In any case, for a dissertation, the published work must be logically connected by added text and be integrated into the document in a coherent manner, and sufficient detail must be presented to satisfy the characteristics of a dissertation.
4. If the previously published material is included in the body of the document, it must be presented in a manner consistent with the remainder of the text: i.e., identical typeface, margins, and consistent numbering of tables, figures, and footnotes. Bibliographic citations should be integrated with those for the rest of the document.
5. If the previously published material is placed in the appendix, its size may be adjusted to ensure that the margins are sufficient to support microfilming. Appended previously published material may retain the originally published numbers for tables, figures, footnotes, and bibliographic entries.
6. For all previously published material not in public domain and not intended as "fair use," the student must submit by a permission statement signed by the copyright owner(s) to the approved office in the student's school or department. For more information on copyright issues, see the University

Library System's "Copyright Information" webpage at

<http://www.library.pitt.edu/guides/copyright/>

Links to more copyright information can be found on the University's ETD webpage at <http://www.pitt.edu/~graduate/etd> (select "copyright").

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