

GUIDE TO COMPLETING A GRADUATE DEGREE
AND
PREPARING AND SUBMITTING A
DISSERTATION, THESIS, OR REPORT
AT
MICHIGAN TECHNOLOGICAL UNIVERSITY

By:
The Graduate School

MICHIGAN TECHNOLOGICAL UNIVERSITY

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1. Overview and summary

This edition of the *Guide to Completing a Graduate Degree and Preparing and Submitting a Dissertation, Thesis or Report at Michigan Technological University* (referred to as the *Guide* throughout the remainder of this document) is revised from the original version. Some important changes are:

- Throughout this document, the names of publications, forms, or other resources are italicized. Requirements are underlined or otherwise emphasized.
- The *Guide* now applies to the submission of final reports. All students submitting a report must follow the requirements for Title pages (Section 4.1), Approval pages (Section 4.2), and Abstracts (Section 4.11). Other formatting requirements apply only if a bound copy of the report is desired (see Section 3). In all other cases, formatting and preparation of the remainder of the document is at the discretion of the advisor and examining committee.
- The *Guide* now allows for more flexibility in the formatting of dissertations and theses. Double-sided printing and single-spacing are encouraged and are modeled in this *Guide*.
- Digital copies of theses and reports will be retained in the J. R. Van Pelt and Opie Library. Paper and digital copies of dissertations will be retained in the Library.
- Approval of a student's final oral examination and approval of the final dissertation, thesis, or report, will now be reported separately.
- Approval pages included in dissertations, theses, and reports will no longer include original signatures.
- Students will have the ability to submit documents to plagiarism-detection software without Graduate School assistance. Originality reports generated by plagiarism-detection software will only be reviewed by the Graduate School when a student requests assistance.
- Deadlines for submission of a dissertation, thesis, or report have been modified and clarified.
- Students who have met all academic requirements for completion of their degree and have met all Graduate School deadlines for degree completion, but have not submitted an acceptable version of their dissertation, thesis, or report prior to the

end of the final exam period will be allowed to enroll in a special section of UN5951. There is no tuition associated with UN5951, but students will be charged a resubmission fee equivalent to 25% of the regular tuition for a single credit to pay for the additional processing required. Enrollment in the special section of UN5951 is limited to one semester. Enrollment in the special section of UN5951 is restricted; only students who have met all academic requirements for completion of their degree and have met all Graduate School deadlines for degree completion are allowed to enroll in these courses.

- All bound copies ordered through the Graduate School will be bound with a black cover with white lettering. Color, oversized pages, and pockets will be allowed.

1.1. Checklist for students completing a graduate degree

- Complete and turn in all required forms (see [Section 2](#)).
- If a dissertation or thesis is required, students must produce a professional document that uses appropriate formatting ([Section 3](#)) and contains appropriate sections ([Section 4](#)). Title pages and approval pages must be prepared in accordance with the University-approved format. [Appendix A](#) contains sample of title and approval pages. [Appendix B](#) contains suggestions for using in-text references and generating reference lists.
- If a report is required, students must produce a professional document. Title pages, approval pages, and abstracts only must be prepared in accordance with the University-approved format ([Section 4](#)). [Appendix A](#) contains sample title and approval pages. If the report is to be professionally bound, basic formatting required by the bindery for printing must be followed (see [Section 3](#)). that uses the formatting approved by the advisor and examining committee. In all other cases, the formatting of the remainder of the document must be approved by the advisor and examining committee.
- Dissertations, theses, and reports must be in compliance with University policies related to academic integrity and the responsible conduct of research ([Section 5](#)).
- Dissertations, theses, and reports must be reviewed and approved as described in [Section 6](#).

2. Forms related to degree completion

2.1. Students who wish to participate in commencement

Students who are eligible to participate in commencement and wish to do so must submit the Commencement application form which is due ten weeks in advance of the commencement ceremony. Students must also arrange to rent academic garb through the University Bookstore.

2.2. All students completing a graduate degree

All students completing a graduate degree must submit the following two forms to the Graduate School and receive approval of these forms prior to graduation.

- *Degree schedule:* This is the first form to submit to initiate verification that requirements for the degree will be met. Students should submit this form during the academic-year semester or summer session prior to graduation. This form triggers a degree audit to determine whether the coursework and other requirements for the degree will be met. **NOTE: Students who fail to submit this form may not be eligible for graduation because they may not have completed all requirements for the degree.**
- *Degree completion form:* This is the last form to submit. Must be submitted prior to 4 pm on the first day of finals period during the final academic-year semester or summer session of regular enrollment. Submission of this form triggers a process that verifies that all degree requirements have been met and that all fees have been paid. It includes information about accessing the *Graduate School exit survey* (optional) and *Survey of Earned Doctorates* (required for PhD students). This form includes the *Publishing agreement* for students who are completing a dissertation, thesis, or report. The *Publishing agreement* is used to order bound copies of the dissertation, thesis, or report, calculate fees related to completion of the degree, and select ETD and embargo options. Upon Graduate School approval of the *Publishing agreement*, a signed copy will be returned to the student for program approval when the student is still on campus. The Graduate School will assist with obtaining program approval of this form for students who are no longer on campus. After program approval, students must arrange for payment of any outstanding fees. **NOTE: Students who fail to submit this form prior to the deadline will be required to enroll in regular coursework or research credits during the subsequent semester or summer session.** Verification that final degree requirements have been met can be received in two ways:
 1. All students will receive final confirmation of their degree on their transcript, available after the end of the semester in which their degree is granted.

2. For students completing a dissertation, thesis, or report well in the advance of the end of the semester, the Graduate School can generate a letter verifying that all requirements for the degree have been met.

2.3. Students completing a dissertation, thesis, or report

Students completing a dissertation, thesis, or report must also submit the following forms in order to complete their degree. See also [Table 2.1](#) and [Figure 2.1](#) at the end of this section.

- *Pre-defense form*: Due two weeks before the final oral defense. Recommended submission date is at least three weeks before the start of finals period in the academic-year semester or summer session of intended completion in order to give the student sufficient time to make any corrections to the written document prior to the end of the semester or summer session. Must be accompanied by a draft of the dissertation, thesis, or report. At the time this form is submitted to the Graduate School, students must also distribute electronic or paper copies of the draft document to the members of their committee. **NOTE: Students who fail to submit the draft document will be required to postpone their final oral defense until at least two weeks following the date of submission.**
- *TDR-review*: Generated by the Graduate School after review of a dissertation, thesis, or report. It will contain information about Graduate School requirements that have not been met in the submitted document. It will be returned to students within two weeks of the date that the student submitted their document to the Graduate School for review.
- *Report on final oral examination*: Must be submitted prior to 4 pm on the first day of finals period during the final academic-year semester or summer session of regular enrollment. This form documents successful completion of a student's final oral examination and approval of the final oral examination by the advisor, committee, and department or school. **NOTE: Students who fail to submit this form prior to the deadline will be required to enroll in regular coursework or research credits during the subsequent semester or summer session.**
- *TDR-approval*: Must be submitted prior to 4 pm on the first day of finals period during the final semester of regular enrollment. This form is to be submitted following approval by the advisor and department or school of the written dissertation, thesis, or report. At the time this form is submitted, copies of the approved revised document must be submitted to the Graduate School. Copies of dissertations and theses must also be submitted to ProQuest/UMI. Students must refer to the TDR-review form they received from the Graduate School as they revise their document. **NOTE: Students who fail to submit this form prior to the deadline will be required to enroll in regular coursework or research**

credits during the subsequent semester or summer session. If the revised version submitted to the Graduate School does not conform to Graduate School requirements additional revisions will be required. The results of review of the revised document will be communicated to the student via the *TDR-review* form. If the student is unable to submit an acceptable document to the Graduate School prior to the end of the final exam period, they will be allowed to enroll in a special section of UN5951 for the following semester or session in order to complete requirements for their degree. Students may alternatively choose to enroll in regular coursework or research credits. Students concerned about financial aid implications (e.g., loan deferments) or immigration issues should discuss their situation with the Financial Aid or International Programs offices. **NOTE:** **There is no tuition associated with the special section of UN5951, but students will be charged a resubmission fee equal to 25% of the current cost of 1 credit of graduate tuition. Students will graduate in the semester/session in which they complete all degree requirements. Enrollment in the special section of UN5951 is limited to one semester. Enrollment in the special section of UN5951 is restricted; only students who have met all academic requirements for completion of their degree and have met all Graduate School deadlines are allowed to enroll in these courses. Students who fail to complete all requirements for their degree after one semester of enrollment in the special section of UN5951 must register for regular coursework or research credits while completing any remaining degree requirements.**

Table 2.1.

Degree completion requirements and deadlines. Shaded cells apply only to students completing a dissertation, thesis, or report.

<i>Form</i>	<i>Purpose</i>	<i>Deadlines for Submission to Graduate School</i>	<i>Penalty for Failure to Meet Deadline</i>
<i>Degree schedule</i>	Triggers degree audit.	Semester prior to completion.	Possibly not meeting requirements for degree.
<i>Commencement application (Optional)</i>	Requests inclusion in commencement ceremony.	Ten weeks prior to commencement.	Not allowed to participate in ceremony.
<i>Pre-defense form</i>	Schedules defense, submits written draft document.	Two weeks before final oral defense.	Defense postponed until at least 2 weeks following submission.
<i>Report on final oral examination</i>	Indicates approval by the advisor, committee, and department or school of student's final oral defense.	Prior to 4 pm first day of finals period in last semester.	Must enroll in regular course or research credits during subsequent semester or summer session.
<i>TDR-approval</i>	Documents academic approval of written document. Submits revised version of document to Graduate School.		
<i>Degree completion form</i>	Triggers final review to ensure that all requirements for the degree have been met.	Prior to 4 pm first day of finals period in last semester.	Must enroll in regular course or research credits during subsequent semester or summer session.
	Includes the <i>Publishing agreement</i> for students completing a dissertation, thesis, or report. Used to order bound copies of the dissertation, thesis, or report, and calculate fees related to completion of the degree.	Prior to 4 pm first day of finals period in last semester.	Must enroll in regular course or research credits during subsequent semester or summer session.
<i>Survey of Earned Doctorates (PhD only)</i>	Collects data from PhD recipients in the U.S.		
<i>Exit Survey</i>	(Optional) Collects data from Michigan Tech graduate alumni.	Prior to 4 pm first day of finals period in last semester.	No penalty – optional form.
---	Make additional corrections to written document and resubmit to Graduate School.	Prior to the end of finals period	May enroll for 1 semester in UN5951 if necessary and all prior steps completed by deadlines.
	Pay all fees.		Degree not awarded.

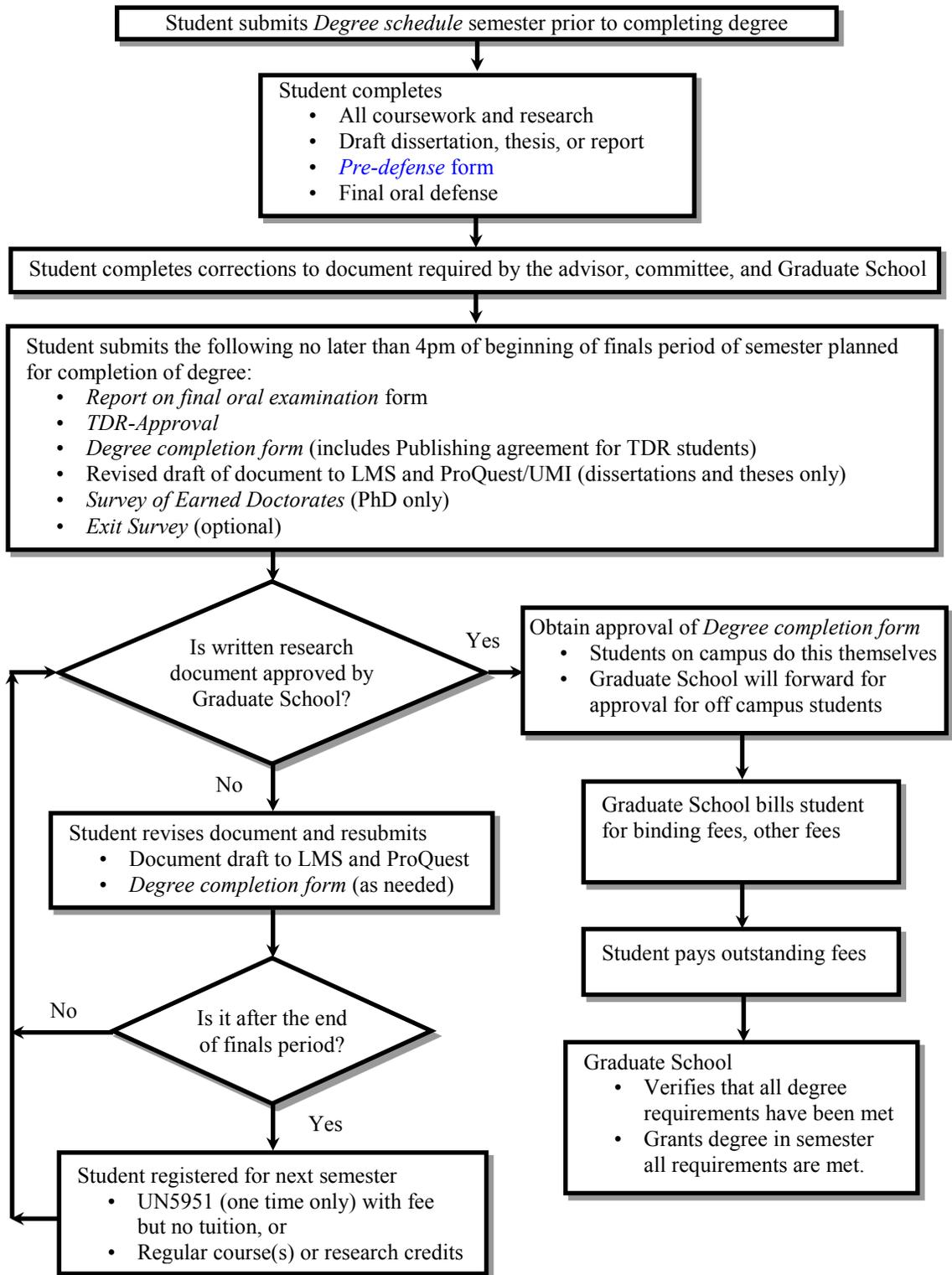


Figure 2.1. Steps required to complete a degree requiring a dissertation, thesis, or report.

3. Formatting guidelines

The formatting required for dissertations and theses ensures acceptance of documents by ProQuest/UMI. Graduate School formatting requirements are underlined in this section.

Students completing a report are not required to adhere to the requirements in this section unless a bound copy of the report is desired or required by the student, advisor, or graduate program. In order to print a bound copy, the formatting requirements in Sections 3.1, 3.2, and 3.3 must be followed. If double-sided printing or oversized pages or media are desired, the formatting requirements in Sections 3.5 and 3.9 also must be followed.

3.1. Typefaces

The typefaces and sizes listed in [Table 3.1](#) are recommended for the main body of the text of a dissertation or thesis. Other typefaces are acceptable as long as they are legible. Type 1, Open Type, or True Type fonts are required for the text of a document. All fonts must be embedded in the document.

Table 3.1.

Examples of some of the typefaces recommended for use in the main body of dissertations or theses. Helvetica, Times, or Geneva fonts are also recommended for Macintosh users.

Typeface (Shown at the minimum size)	Minimum Size for Body Text	Web Font	Minimum Size for Headings	Maximum Size for Headings
Arial	10 pt	Yes	12 pt	24 pt
Century	11 pt	No	13 pt	25 pt
Garamond	12 pt	No	14 pt	26 pt
Georgia	11 pt	Yes	13 pt	25 pt
Lucida Bright	10 pt	No	12 pt	24 pt
Microsoft Sans Serif	10 pt	No	12 pt	24 pt
Tahoma	10 pt	No	12 pt	24 pt
Times New Roman	12 pt	Yes	14 pt	26 pt
Trebuchet MS	10 pt	Yes	12 pt	24 pt
Verdana	10 pt	Yes	12 pt	24 pt

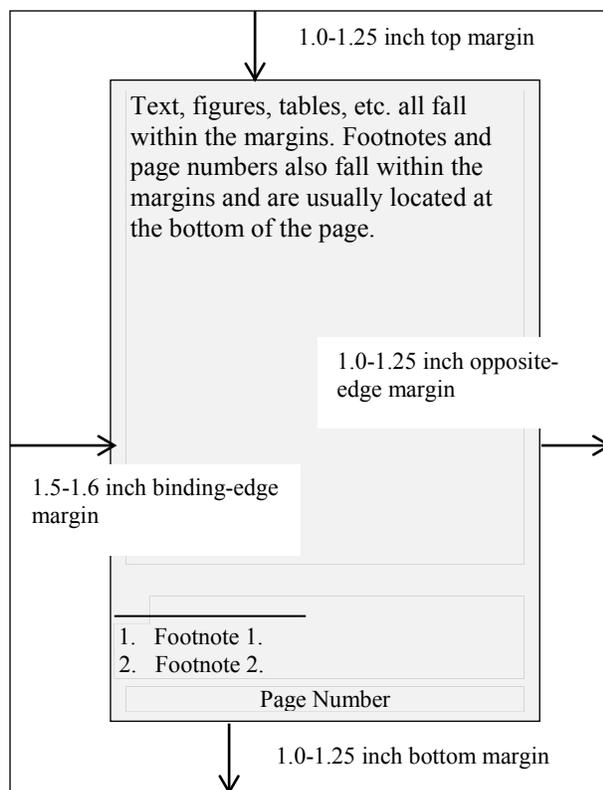


Figure 3.1. Sample page layout. Gray shading shows printable area of the page.

Each page in a document must be assigned a unique and sequential number. In a traditional document, page numbers on pages preceding the main body of the document are printed using lower case Roman numerals (e.g., i, ii, iii, etc.). Arabic numerals (e.g., 1, 2, 3, etc.) are used for page numbers in the main body of the document and any subsequent materials (e.g., a reference list or appendix). It is allowable to use Arabic numerals for page numbers throughout the document.

Page numbers may either be placed at the center of the bottom of the page or in the upper corner of the page on the side opposite the binding. Page numbers must fall within the printable area of the page (see Figure 3.1). Page numbers must appear in the same place throughout the document, even if the orientation of pages changes. Some software packages will automatically place page numbers within a header or footer that may or may not account for the size of the margins in an intuitive way. It is important to confirm that all page numbers fall within the document's printable area.

3.2. Margins

The binding edge margin of all pages must be between 1.5 and 1.6 inches. The margins of the remaining sides must be between 1.0 and 1.25 inches. The required margins apply to all components of the document, including page numbers, footnotes, and appendices. See Figure 3.1 for a sample page that includes a page number and footnotes.

3.3. Paper size

The main body of a dissertation, thesis, or report must be formatted to print on 8.5 × 11 inch paper. Oversize maps or tables are allowed (see Section 3.9).

3.4. Page numbers

The title page and approval page are included in the page count; however, a page number is not placed on these

3.5. Double-sided printing

Double-sided documents are allowable and may cost less to print and bind. Double-sided documents must adhere to the following requirements that relate to margins and page numbering. Also see Section 3.9 regarding the use of oversize pages or media in documents that are prepared for double-side printing.

- Margins: The binding edge margin must be 1.5 to 1.6 inches on all pages. For portrait pages in a double-sided document, the binding edge will be on the left hand side for odd pages, and on the right hand side for even pages. For landscape pages, the binding edge will be on the top for odd pages, and at the bottom for even pages.
- Page numbers: Page numbers placed at the bottom center of the page require no special treatment. If numbers are placed in the upper outside corner, they will appear in the upper right corner on odd pages, and the upper left corner on even pages.
- Blank pages: The title page, approval page, and dedication page (if present) are always printed as one-sided sheets. When a document is prepared for double-sided printing, the back of each of these sheets must be left blank. One way to accomplish this is to insert blank “pages” that will correspond to the reverse side of each of these one-sided sheets. These blank pages do not have numbers printed on them, but they are included in the page count. In a double-sided document, the table of contents is the first page with a number on it; it will be page v (or 5) if no dedication is present, and page vii (or 7) if a dedication is present. Blank “pages” may also be inserted as desired to ensure that major sections (such as the start of a chapter) begin on odd-numbered pages. Blank “pages” are only allowed to occur on even-numbered sides of sheets of paper. Two or more blank “pages” in a row are not allowed.

3.6. Line spacing

Single-spacing, one and one-half line spacing, and double-spacing are allowed. Blank lines may be inserted before and/or after headings in the body of a document. If the first lines of paragraphs are not indented, blank lines should be inserted between each paragraph.

3.7. Figures

Figures should be formatted in a consistent way and the same type(s) and size(s) of fonts should be used in all figures if possible. Sans serif fonts such as Arial or Tahoma are generally preferred for figures. In all cases, any text used in a figure must be legible.

All images must be clear, readable, and reproducible. Images that look good on a computer screen may not be of sufficient resolution to print well. A minimum resolution of 300 ppi is typically recommended for printed materials. Screenshots have a maximum resolution of 72 dpi, and should be used only when absolutely necessary.

Each figure must have a caption that identifies the figure number. Each figure must be assigned a unique, sequential number. In a traditional dissertation or thesis, figures are numbered using the chapter number followed by a period and the figure number (e.g., Figure 3.1). Figure captions are located below each figure. The first sentence of a caption must be an overview of the figure. Subsequent sentences must include, as necessary, detailed information about the figure. Captions should be descriptive enough that the figure can be understood by someone who has not read the body text. If a figure contains multiple parts, each part is generally identified with a letter that is placed within the figure. The caption for a figure with multiple parts typically contains a description of each part, which begins with the part's letter (usually italicized), followed by a comma.

3.8. Tables

Tables should be formatted in a consistent way. The size and font used for text in a table will generally be the same as that used in the main body of a document. Bold text may be used to denote headings in a table. A consistent style of borders should be used for all tables in the document if possible.

Each table must have a caption that identifies the table number. Each table must be assigned a unique, sequential number. In a traditional thesis or dissertation, tables are numbered using the chapter number, followed by a period and the table number (e.g., Table 3.1). Table captions are located above each table. The first sentence of a caption must be a general description of the table. Captions should be brief. Discussion of the significance of the data presented in a table should be included in the body of the document.

3.9. Including oversize pages or media

Note that there is an extra charge for documents that require oversize materials or pockets. Current pricing information is available from the Graduate School or on the *Degree completion form*.

Oversize pages can be incorporated into the document in several ways.

- Pages of up to 11 × 17 inches can be included within the body of the document so that the pages fold out from the binding edge.
 - For single-sided documents with one or more 11 x 17 inch page(s):
Two electronic copies of the dissertation, thesis, or report must be

submitted to the Graduate School. One copy must contain the oversize page(s) in the appropriate location. The second copy must include one blank 8.5 × 11 inch page inserted at each location where an oversize page will go in the final printed version. If there are multiple oversize pages in the document, one blank page must be inserted at each site. Each blank page must have text on it that refers the bindery to a .pdf file that contains the oversize page. Each oversize page must be submitted as a separate .pdf file. The bindery will print and bind these pages as directed.

- For double-sided documents with one or more 11 x 17 inch page(s): Two electronic copies of the dissertation, thesis, or report must be submitted to the Graduate School. One copy must contain the oversize page(s) in the appropriate location. The second copy must include two blank 8.5 × 11 inch pages inserted at each location where an oversize page will go in the final printed version. If there are multiple oversize pages in the document, two blank pages must be inserted at each site. Each pair of blank pages must have text on it that refers the bindery to a .pdf file that contains the oversize page. Each oversize page must be submitted as a separate .pdf file. The bindery will print and bind these pages as directed. The oversize pages themselves will be printed on one side only.
- Larger materials can be folded and placed in a pocket constructed by the bindery. These oversize materials can be printed by the student or the bindery. If printed by the student, a number of copies equal to the number of bound copies to be ordered needs to be provided to the Graduate School before the Graduate School will submit the order for bound copies.
- Media, such as CDs, can also be included in a pocket. An appropriate number of copies of the media must be provided to the Graduate School before the Graduate School will submit the order for bound copies.

3.10. Use of color

Color should be used only when necessary. Color is more expensive to print than black and white, it does not reproduce equally well on different printers or computer monitors, and may be difficult for visually impaired readers to interpret. Some word processors use RGB color to present black text in a PDF file. See the Graduate School web site [<http://gradschool.mtu.edu/td/formatting>] for guidance on how to present these pages in black and white to minimize printing costs.

4. Sections and order

Dissertations and theses should contain the sections described in this section. Some sections are required (as noted) and some are optional. When optional sections are included they should appear in the order recommended in this section of the *Guide*.

Students submitting a report are only required to include a title page (Section 4.1), approval page (Section 4.2), and abstract (Section 4.11). Additional sections are included at the discretion of the advisor and examining committee.

4.1. Title page (required for Dissertations, Theses, and Reports)

Sample title pages are shown in [Appendix A](#). The typeface, style and size of text should be the same as that used for the body text of the document. A title page must contain the following elements in the following order:

- The title – shown in all capital letters. For example, “MY DISSERTATION”, or “MY THESIS”, or “MY REPORT”, where My Dissertation (or My Thesis, or My Report) is the exact title of the document.
- The author’s full name – shown in a mix of upper and lower case letters. For example, “Jane E. Doe”, where Jane E. Doe is the name of the author.
- Type of document – shown in all capital letters. This will be one of the following: “A DISSERTATION”, “A THESIS”, or “A REPORT”.
- The following statement – written exactly as shown here but without the quotations: “Submitted in partial fulfillment of the requirements for the degree of”.
- Type of degree – shown in all capital letters. For example, “DOCTOR OF PHILOSOPHY”, or “MASTER OF SCIENCE”.
- The name of the degree program – shown using upper and lower case letters. The word “In” should precede the name of the degree program. Note that the name of the degree program will generally not be the same as the name of a department or school. See [<http://www.mtu.edu/gradschool/programs/degrees/>] for a current list of all degree programs.
- The University name – shown in all capital letters, as shown here but written without the quotation marks: “MICHIGAN TECHNOLOGICAL UNIVERSITY”.

- The year of completion of the final document. Note that this may not be the same year that the dissertation, thesis, or report was defended.
- A copyright notice – printed using a mix of upper and lower case letters and with the format: “©Year Owner’s Name”. For example: “©2012 Jane E. Doe
“Copyright” or “Copr.” may be used instead of “©”. Note that copyrights may be registered, for a fee, when documents are submitted to ProQuest/UMI.

4.2. Approval page (required for Dissertations, Theses, and Reports)

Sample approval pages are shown in [Appendix A](#). The style and size of font should be the same as that used for the body text of the document. An undated approval page must be included in the electronic document submitted to the Graduate School prior to the defense.

The following elements must be included on an approval page in the following order:

- For a dissertation, the text: “This dissertation has been approved in partial fulfillment of the requirements for the Degree of DOCTOR OF PHILOSOPHY (note that the name of the degree is written in all capital letters) in *Degree Program* (where the appropriate name is entered and is written in a mix of upper and lower case letters and is not italicized).” Note that the name of the degree program will generally not be the same as the name of a department or school. See [<http://www.mtu.edu/gradschool/programs/degrees/>] for a current list of all degree programs.
- For a thesis, the text: “This thesis has been approved in partial fulfillment of the requirements for the Degree of *DEGREE TYPE* (where the appropriate name of the degree, e.g., Master of Science, is inserted and is written in all capital letters) in *Degree Program*” (where the appropriate name is entered and is written in a mix of upper and lower case letters and is not italicized). Note that the name of the degree program will generally not be the same as the name of a department or school. See [<http://www.mtu.edu/gradschool/programs/degrees/>] for a current list of all degree programs.
- For a report, the text: “This report has been approved in partial fulfillment of the requirements for the Degree of *DEGREE TYPE* (where the appropriate name of the degree, e.g., Master of Science, is inserted and is written in all capital letters) in *Degree Program*” (where the appropriate name is entered and is written in a mix of upper and lower case letters and is not italicized). Note that the name of the degree program will generally not be the same as the name of a department or school. See [<http://www.mtu.edu/gradschool/programs/degrees/>] for a current list of all degree programs.

- Name of the student’s administrative home department or school written in upper and lower case letters. Note that the name of the department or school will generally not be the same as the name of a degree program.
- Names of members of the Graduate Faculty who served as advisor (or co-advisors, if applicable) and as committee members and approved the dissertation, thesis, or report.
 - The top line is for the name of the advisor. When there is a single advisor, this line should be preceded by the words: “Dissertation Advisor:” (or “Thesis Advisor:” or “Report Advisor:” as appropriate). If there are two co-advisors, the name of the first co-advisor is given on the first line and the name of the second co-advisor is given on the second line. When there are two co-advisors, the name of each co-advisor should be preceded with the words “Dissertation Co-Advisor:” (or “Thesis Co-Advisor:” or “Report Co-Advisor:”).
 - List each committee member on a separate line. The names should be preceded by the words: “Committee Member:”. All of the Committee Members must be listed.
- The second to the last line is reserved for the title and name of the department chair or school dean of the unit which served as the student’s academic home at the time they completed the degree. The individual’s title (e.g., “Department Chair:”, or “School Dean:”) should precede the name of the individual.

4.3. Dedication (optional)

Dissertations, theses, or reports may be dedicated to an individual, several people, or a group. The word “dedication” is usually not needed on this page. Customarily, the dedication is short, such as, “To my mother.”

4.4. Table of contents (required for Dissertations and Theses)

Each chapter or section heading, with the exception of the table of contents, must be listed in the table of contents. Additional subheadings may also be included. The table of contents must be formatted so that each level of heading is clearly distinguished and page numbers are easily found. Page numbers must align flush right and must be preceded by a leader of periods. One way to clearly identify section headings is to increase the indentation of successively lower levels of subheadings. Formatting for a Table of Contents is illustrated in the table of contents for this *Guide*.

4.5. List of figures (optional)

If a list of figures is included, it should consist of a table that lists the figure number, the first line of the figure caption, and the page number on which the figure occurs. The formatting of the list of figures is similar to that of a table of contents, except that there are no subheadings.

4.6. List of tables (optional)

If a list of tables is included, it should consist of a table that lists the table number, the first line of the table caption, and the page number on which the table occurs. The formatting of the list of tables is similar to that of a list of figures.

4.7. Preface (required in certain instances for Dissertations and Theses)

A preface is required in two situations:

- A document includes previously published materials, or
- A document includes materials developed collaboratively.

A single preface at the beginning of the dissertation or thesis is required if published material, such as a journal article, is republished in its entirety as a chapter in the document. For the purposes of this *Guide*, published materials include those already in print, accepted for publication, in review, or planned for submission in the near future.

A preface is also required if part of the dissertation or thesis was prepared collaboratively. For example, if a chapter of a dissertation was prepared jointly by the author of the dissertation and another student (who worked together on the research project and in the writing of the text of the chapter), the preface must clearly describe the contributions made by each individual.

4.8. Acknowledgements (optional)

This page is used to thank individuals, groups, or organizations for their support.

4.9. Definitions (optional)

If a list of definitions is included, it should be alphabetized. A definition list may include a key to foreign terms and phrases used in the document.

4.10. List of abbreviations (optional)

If a list of abbreviations is included, it should be alphabetized.

4.11. Abstract (required for Dissertations, Theses, and Reports)

An abstract is a concise summary of the document. It is not an introduction. It should clearly identify the topic and major findings of the research. The abstract in the document will be used for the ProQuest/UMI index and to advertise the oral defense on campus. Publication with ProQuest/UMI is required for dissertations and theses. ProQuest/UMI does not accept reports at this time. Dissertation abstracts should be less than 350 words and thesis and report abstracts should be less than 150 words in order to ensure that they are not truncated by automated search engines. Under no circumstances may an abstract be longer than two pages (double-spaced) or one page (single-spaced).

4.12. Main body (required for Dissertations and Theses)

If the student's program has requirements for the content of a dissertation or thesis, those requirements should be used in place of the recommendations in this section.

A traditional document presents the research in the form of a single document (similar to a book). Dissertations and theses can also be presented as a collection of articles, some of which may have been published previously. Both formats are acceptable.

If material included in a dissertation, thesis, or report has been previously published, that prior publication must be cited in the dissertation, thesis, or report. Reproduction of any section of an article that is larger than allowed for by "fair use" policies requires appropriate copyright permission.

4.12.1. Common sections in a traditional document

4.12.1.1. *Introduction*

The introduction lays the foundation for the current research and places the work in context within the disciplinary field. It should be an analysis of the existing body of research that has a bearing on the current project. It should both review the literature and provide a critical analysis of it. It should outline some of the limitations of prior research and describe areas that are in need of further exploration. This section provides context for the goals of the current research project.

4.12.1.2. *Goals and hypotheses*

Following the introduction is usually a section outlining the goals or purpose of the current work and the hypotheses being tested or problems being addressed.

4.12.1.3. *Methods*

The methods section describes all of the methods used in the study. Methods may include activities such as modeling, conducting simulations, performing field work or experiments, implementing surveys, among many other techniques. If the description of

one or more of the methods is lengthy, it is appropriate to include an overview in this section of the document and to include more details in an appendix.

4.12.1.4. Results (data and observations)

The results section presents all of the data obtained using the methods described in the methods section. A common mistake is to include a description of methods within the results section. This should be avoided in nearly all circumstances. If the data are extensive, a summary may be included in the main body of the document with additional information located in an appendix. Appendices may also be used to present data in different formats.

4.12.1.5. Discussion

In the discussion section, results are interpreted and are put in context with the current state of research in the discipline. The discussion section should clearly explain the meaning of the results and their implications, in particular as they relate to the hypothesis(es) tested. It is common to refer to use citations to refer to the primary disciplinary literature in order to compare and contrast the results of the current project with results obtained and reported by other researchers. Sources of discrepancies, limitations, or errors in the current work and their implications should also be presented in the discussion section. New data should not be presented in this section.

4.12.1.6. Future work

This section highlights additional work that could be done at a later date to build upon the current research.

4.12.1.7. Conclusions

Conclusions summarize the main findings of the current research. This section reiterates the main findings and limitations of the research and may highlight some of the areas for future work.

4.12.2. Collection of articles

In this type of document each chapter is typically developed as a stand-alone section. If any chapter contains published material (such as a journal article) or was prepared collaboratively, a preface section should be included in the dissertation or thesis to clarify the status and origin of the material. For the purposes of this *Guide*, published materials include those already in print, accepted for publication, in review, or planned for submission in the near future.

When the document consists of a collection of articles, an introductory chapter must be included that describes the connection between all other chapters. A dissertation or thesis is not simply a collection of articles; it is the presentation, synthesis, and analysis of an

entire research project which was conducted over a period of time. It is most helpful when the introductory chapter states the goals and hypotheses for the overall project and describes how each chapter relates to the overall goal.

Formatting of published items included in a thesis or dissertation must either:

- Conform to the guidelines to authors of the publishing organization, or
- Be consistent with the rest of the thesis or dissertation.

Photocopies or PDF versions of previously published papers will not be accepted.

A footnote must be placed on the first page of a chapter containing published material with the following information:

- “The material contained in this chapter was previously published in *OR* has been accepted for publication in *OR* has been submitted to the *Title of Source of Publication*.”

4.13. Reference List/Bibliography (required for Dissertations and Theses)

A reference list or bibliography presents all of the sources cited in the document. It may also include works consulted. The style used in the list of references should be consistent with the style used in a well-respected journal in the student’s discipline. A single reference list for the entire document may be included or separate reference lists may be included at the end of each chapter.

See [Appendix B](#) for more suggestions on using in-text references and creating reference lists.

4.14. Appendices (optional)

Appendices are used to place lengthy and detailed material that supports the main body of work. Appendices should be formatted in the same way as the body of the dissertation, thesis, or report.

5. Academic integrity and responsible conduct for research

Dissertations, theses, and reports are expected to be completed with the highest level of integrity and must adhere to all University policies and the accepted standards of practice in the relevant disciplinary field.

5.1. Research misconduct

Michigan Tech addresses academic integrity and misconduct in research, scholarly, and creative endeavors (hereafter, “misconduct”) in separate policies and procedures. The integrity of academic assignments is addressed by the Academic Integrity Policy (Senate Proposal 8-06, [<http://www.sas.it.mtu.edu/usenate/propose/06/8-06.htm>]), while the integrity of research is addressed by the Misconduct in Research, Scholarly, and Creative Endeavors Policy (Senate Proposal 4-08, [<http://www.sas.it.mtu.edu/usenate/propose/08/04-08.htm>]). A dissertation, thesis, or report is considered research, and allegations of misconduct are handled according to the misconduct procedures: [http://www.admin.mtu.edu/research/vpr/documents/Misconduct_Procedures.pdf].

Misconduct includes, but is not limited to, fabrication, falsification, or plagiarism.

- Fabrication is making up data or results and recording or reporting them.
- Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented.
- Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit to the originator. Policies related to plagiarism also cover instances of self-plagiarism.

Misconduct does not include honest errors or differences in opinion.

5.2. Human and animal subjects and recombinant DNA

All research projects that involve human subjects, animal subjects, or recombinant DNA must be reviewed by the Office of Research Integrity and Compliance. Projects that are approved will receive an approval number from the Office of Research Integrity and Compliance that can be referred to in a dissertation, thesis, or report as evidence that approval was sought and granted.

5.3. Using copyrighted materials

Materials obtained from another source may be covered by a copyright. This section provides information pertaining to the use of copyrighted materials.

5.3.1. Determining if permission is needed

All material reused or obtained from another source must be properly cited. This includes previously published material that was originally created by the author of the dissertation, thesis, or report being submitted to Michigan Tech’s Graduate School.

Permission is needed to republish any material, including that created by the author of the dissertation, thesis, or report being submitted to Michigan Tech’s Graduate School, with the following exceptions:

- Material in the public domain. This includes material created by employees of the federal government. This may also include some materials produced in other countries or by other governments.
- Material for which the copyright has expired.
- Material that is covered under the “fair use” clause of copyright law, which allows for the reuse of some materials without permission.
- Text or figures substantially altered from their original source.

A full discussion of copyright law is beyond the scope of this *Guide*. The Graduate School maintains a web site that contains links to helpful websites and resources to assist students in obtaining permissions: [<http://www.gradschool.mtu.edu/td/copyright/>]. ProQuest maintains a site entitled “Copyright Law & Graduate Research” that provides information about copyrights in general, what items require permission, and how to obtain permission: [<http://www.proquest.com/en-US/products/dissertations/copyright/>]. Stanford University also maintains a site that describes copyright and fair use in academia in addition to addressing the use of copyrighted materials in the classroom: [http://fairuse.stanford.edu/Copyright_and_Fair_Use_Overview/].

5.3.2. Obtaining permission to use copyrighted materials

If permission is required to use previously published materials, it must be given in writing by the holder of the copyright (typically a publisher). Obtaining permission to use previously published material can take a great deal of time. Sample permission letters are available from ProQuest: [<http://www.proquest.com/en-US/products/dissertations/copyright/>].

If permission is not granted, the previously published material must not be used in its published form. In many cases text, figures, or tables can be substantially modified so that they can be used as long as they are properly cited.

5.3.3. Documenting permission to use copyrighted materials

In cases where copyrighted material is used in a dissertation, thesis, or report, it is expected that permission to use the material will be clearly documented. Many publishers explicitly describe the way that their permission to allow re-use of copyrighted material should be documented. Two ways this is typically done include the following.

- Include an acknowledgement of the permission granted by the holder of the copyright in the acknowledgement section of the dissertation, thesis, or report.
- Include a reference to the permission either in the text of the document, as a footnote, or in the caption of a figure or table.

In addition, students must submit documentation to the Graduate School that they have permission to use copyrighted materials in a dissertation or thesis. This is required because ProQuest/UMI expects Michigan Tech to ensure that written permission to use copyrighted material has been obtained whenever necessary. Evidence of permission to use copyrighted material can be documented in two ways

1. It can be included in an appendix to the dissertation or thesis. This is the preferred method because these materials will always be readily available to the author of the document in case they need access to the written evidence at some point in the future after they have completed their degree.
2. It can be submitted to the Graduate School as a separate file. The file should be named in some logical way so that it can be easily located by staff members.

With either method, label each piece of evidence with the corresponding figure number, table number, or chapter so that the reader can easily match the evidence to the corresponding material in the dissertation or thesis.

5.4. Originality Certification

The Publishing agreement includes an originality statement that students must sign to certify they are submitting an original document.

Plagiarism-detection software (e.g., turnitin.com) can be used to assist in ensuring that a document is free of plagiarism. See [<http://gradschool.mtu.edu/td/submission>] for links and instructions about accessing the plagiarism-detection software.

Several important facts should be kept in mind when using plagiarism-detection software.

- Plagiarism-detection software compares the text in a dissertation, thesis or report to other sources that are available from the internet or from materials archived by the software provider.
- The software will alert the user to the presence of matching segments of text, even if the matching segment consists of a commonly used phrase that does not constitute plagiarized material.
- The software will not detect paraphrased material that is not cited or is improperly cited.

6. Submitting the Document

Submitting and obtaining approval for a dissertation, thesis, or report will partially satisfy the requirements for completion of a graduate degree at Michigan Tech. There are other requirements as well. This section of this *Guide* focuses on processes related to submission and revision of dissertations, theses, or reports. Students completing a degree should also refer to Section 2 of this *Guide* for more information about the steps required for completion of a degree.

6.1. Electronic Document preparation

Dissertations, theses, and reports will be available electronically in the Library. Dissertations and theses will also be electronically available via the [ProQuest Dissertations and Theses @ Michigan Technological University](#) database (database access requires Michigan Tech ISO ID and password if off campus). ProQuest does not accept report submissions at this time.

Dissertations, theses, and reports must be submitted to the Graduate School as a single .pdf file with all fonts embedded. Compression, password protection, or digital signatures are not allowed. Supplemental files that do not lend themselves to inclusion in a written document (such as music or video) may also be included but must be linked to text or described within the .pdf document. Supplemental files must conform to ProQuest/UMI specifications as detailed in their publishing agreement. See the “Support/Training” area of their web site: [<http://dissertations.umi.com/michigantech>] for a complete listing of allowable file types.

The single .pdf file can be bookmarked and hyperlinked to aid navigation. It is recommended that, at a minimum, the table of contents contains hyperlinks to each section, and each item in the table of contents and the table of contents itself are listed as a bookmark. Figures and tables may be linked to the table of contents or to text within the main body of the document. See the Graduate School website for seminars [<http://www.mtu.edu/gradschool/administration/academics/resources/seminar/>] and blog tutorials [<http://blogs.mtu.edu/gradschool/category/theses-and-dissertations/>] about using common types of software to prepare a dissertation, thesis, or report.

To avoid possible cross-platform problems and difficulties in future archival processes, the names of all files must follow standard naming conventions. File types must be indicated at the end of a document’s name using a period followed by letters. Document names must consist of English letters and Arabic numbers only; no extra punctuation or diacritical marks or spaces are allowed. For example: “JJSthes.pdf”, not “John Smith Thesis.pdf”; “Fig04.jpg”, not “Figure 4.jpg”. File names are limited to 15 characters (not including the file extension) so that URLs do not become overly long.

When including supplemental files, it is recommended that files are named so that a computer will sort them in some logical manner. For example, each file name can begin with a 1- or 2-digit number to ensure they will sort logically: “01Smith.pdf”, “02Music.wav”, “03Movie.mov”, etc.

6.2. Submission of draft prior to a defense

It is in each student’s best interest to prepare a high-quality document prior to their final oral defense. The content of a dissertation, thesis, or report is ultimately the responsibility of the author. It must be a high-quality original document. Students are strongly encouraged to make use of campus resources (including professional development sessions, their advisors, other students, and plagiarism-detection software) as they conduct their research and prepare their written document. Students who make use of plagiarism-detection software to ensure that their document is free of plagiarized material can seek assistance from the Graduate School in interpreting reports.

Students must do the following at least two weeks before the proposed defense date.

- Obtain approval from their advisor prior to scheduling a defense.
- Submit a draft of their dissertation, thesis, or report and a *Pre-defense form* to the Graduate School.
- Distribute electronic or paper copies of their draft dissertation, thesis, or report to each of their committee members.

6.2.1. Submitting the pre-defense draft document to the Graduate School

Active graduate students will automatically be allowed access to the Graduate School dissertation, thesis, and report submission system through the University’s current learning management system (LMS) (e.g., Blackboard, Canvas, Sakai, Moodle, etc.). Inactive students should contact the Graduate School to gain access to the submission system. The submission system provides a secure area where materials can be uploaded and reviewed by appropriate staff. Advisors do not have access to the submission system. Students can find instructions on accessing the system and uploading documents and supplemental files at: [<http://gradschool.mtu.edu/td/submission>].

6.2.2. Review of the pre-defense draft

Draft dissertations, theses, and reports will be reviewed to ensure that they adhere to University requirements. Required changes will be noted, and these must be addressed before a final document will be accepted. Comments will be returned using a standard form (TDR-Review) that will be delivered to the student via the LMS. The advisor will be notified via email whenever a TDR-Review form is delivered to the student. Advisors

may access the review using the University's current document imaging software (e.g., ImageNow).

Documents are reviewed in the order they are received by the Graduate School. Every effort is made to review documents in a timely manner; however, students should allow up to two weeks for completion of a review.

6.3. Submission of a revised draft document after the defense

Successful completion of the final oral defense is reported using the *Report on final oral examination* form. After the final oral defense has been successfully completed students must make all revisions required by the advisor and committee and make all corrections required by the Graduate School.

The revised document must be approved by the advisor and department or school through the TDR-approval form. The TDR-approval form must be submitted to the Graduate School.

6.3.1. Degree Completion form and Publishing agreement

Students begin to complete the final requirements for their degree by submitting the Degree Completion form via the LMS. The *Degree Completion form* includes a *Publishing agreement form* for students completing a dissertation, thesis, or report.

The *Publishing agreement* is used to calculate all fees associated with submission of the dissertation, thesis, or report and to select ETD and embargo options for the document. If University funds are to be used to pay for any portion of a student's publishing fees, signatures of the graduate program assistant or advisor and each account holder are required on the *Publishing agreement* form.

The *Publishing agreement* also verifies that the Library has the right make a limited number of photocopies of the work as necessary for interlibrary loan patrons or to replace a lost copy of the document. The *Publishing agreement* also collects the information required for submission of the document to ProQuest/UMI. Traditional Publishing is the minimum requirement. Open Access publishing, registration of the copyright, and printed copies from ProQuest/UMI are options that students may select if desired when they submit the form (note that additional fees apply). Fees for printed copies from ProQuest/UMI are paid directly to ProQuest/UMI, while fees for the Open Access publishing and registration of copyright are paid directly to Michigan Tech. The *Publishing agreement* form includes links to sites that describe these options.

Students must also submit a revised version of the document to ProQuest/UMI (dissertations and theses only) and to the Graduate School (dissertations, theses, and reports) for final review. Instructions are available online at: [<http://gradschool.mtu.edu/td/submission/#final>].

6.3.1.1. *Embargoes and restricted access*

All dissertations, theses, and reports are normally published and available as soon as the Library processes the submission. Students can request that their document be embargoed for a finite period of time on the *Publishing agreement* form. This prevents it from being made available for a certain period of time. Embargoes are typically requested when students wish to publish their document as a book after graduation or when they have included proprietary material in their document. Students may also request that access to their electronic document be restricted to the Michigan Tech community when they submit the *Publishing agreement*.

Requests for embargoes must include a justification for the request and must be approved by the advisor or graduate program director. Graduate School staff will review requests for one year or less. The dean of the Graduate School will review requests for longer than one year. Approval for an embargo of more than one year is not automatic and is rarely granted.

Once an embargo or restriction is in place, students may request to have their embargo or restriction extended by submitting a request in writing to the Graduate School at least 2 weeks before the embargo or restriction expires.

All embargo requests will incur a 25% surcharge on the binding costs. Binding of an embargoed document does not occur until the embargo has expired.

6.3.1.2. *Completion fees*

Fees associated with completion of the dissertation, thesis, or report are calculated when the *Degree completion form* is submitted. These fees must be paid before the degree can be completed.

Students must log into banweb.mtu.edu, select “Other Payments” and “Graduate School Fees” to pay fees. Once this step is complete, electronic copies of the document will be released to the Library (unless an embargo has been requested and approved). Final documents will also be released to ProQuest/UMI [<http://dissertations.umi.com/michigantech/>].

6.3.2. **Review of the revised draft**

Revised documents will be reviewed to ensure that they adhere to all University requirements. As for the pre-defense draft, required modifications will be noted and will be communicated to the student via the LMS using the *TDR-review* form. All required modifications must be addressed before the final document will be accepted by the Graduate School. When all required changes have been made, the final document will be accepted by the Graduate School.

6.4. Completion of the Degree

Once students receive approval of their *Publishing agreement* from the Graduate School, the Graduate School will bill the student for any fees associated with completion of the degree. Students must pay all outstanding fees. Once the fees are paid, the Graduate School will verify that all degree requirements have been met and will grant the degree in the semester in which all requirements were completed and all fees paid.

Students who are no longer in the Houghton area should notify the Graduate School (via the *Degree Completion form*) to indicate they are off campus and need assistance in completing final paperwork. The student must make their own arrangements for paying any fees due on Banweb.

6.5. Deadlines

In order to complete all requirements for a degree within a given semester, students should plan on defending a minimum of at least one week before the start of the final exam period for that semester. This allows time for the student to make required revisions and submit a revised document to the Graduate School prior to 4 pm on the first day of finals period. Figure 2.1 graphically portrays the actions that students submitting a dissertation, thesis, or report must complete by the indicated deadlines. If deadlines are not met, students will be required to register for regular coursework or research credits in the subsequent academic-year semester or summer session (as shown in [Figure 2.1](#)).

It is important to note that students who have completed all steps up to and including submission of a revised document will be eligible to enroll in special Graduate School completion courses (UN5951) for up to one semester in order to allow them to complete the document submission process and all final paperwork. See Section 2 of the *Guide* for more information.

7. References

University of Chicago Press Staff, editor. *The Chicago manual of style*. 16th ed. Chicago (IL): University of Chicago Press; 2010. Call Number: Z253 .U69 2010.

Council of Science Editors, Style Manual Committee. *Scientific style and format: the CSE manual for authors, editors, and publishers*. 7th ed. Reston (VA): The Council; 2006. Call Number: T11 .S386 2006.

Appendix A: Sample title and approval pages

See Section 4.1 for a description of the title page and Section 4.2 for a description of the approval page. Examples are shown on the pages that follow.

The samples included for a thesis can be modified for use with a report by substituting the word “REPORT” for the word “THESIS”.

Sample pages in Word format along with instructions on how to convert them to PDF format and include them in a dissertation, thesis, or report can be found online [<http://gradschool.mtu.edu/td/formatting>].

Sample Title Page for a Dissertation

INCREASING COMPUTATIONAL EFFICIENCY THROUGH NANOSCALE
COMPONENT MODIFICATIONS

By

Jane E. Smith

A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

In Computer Engineering

MICHIGAN TECHNOLOGICAL UNIVERSITY

2012

© 2012 Jane E. Smith

Sample Approval Page for a Dissertation

This dissertation has been approved in partial fulfillment of the requirements for the Degree of DOCTOR OF PHILOSOPHY in Computer Engineering.

Department of Electrical and Computer Engineering

Dissertation Advisor: *Type the name of the advisor here. If there are co-advisors, replace the word "Advisor" with "Co-advisor".*

Dissertation Co-Advisor: *If there are co-advisors, type the name of the second co-advisor here.*

Committee Member: *Type the name of a Committee Member here.*

Committee Member: *Type the name of a Committee Member here.*

Committee Member: *Type the name of a Committee Member here.*

Committee Member: *Type the name of a Committee Member here.*

Department Chair/School Dean: *Type the name of the Department Chair or School Dean here.*

Sample Title Page for Master's Thesis

IMPROVING PERFORMANCE OF DIESEL ENGINES UNDER LOW
TEMPERATURE CONDITIONS

By

Mary A. Doe

A THESIS

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

In Mechanical Engineering

MICHIGAN TECHNOLOGICAL UNIVERSITY

2012

© 2012 Mary A. Doe

Sample Approval Page for Master's Thesis

This thesis has been approved in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE in Mechanical Engineering.

Department of Mechanical Engineering – Engineering Mechanics

Thesis Advisor: *Type the name of the advisor here. If there are co-advisors, replace the word "Advisor" with "Co-advisor".*

Thesis Co-Advisor: *If there are co-advisors, type the name of the second co-advisor here.*

Committee Member: *Type the name of a Committee Member here.*

Committee Member: *Type the name of a Committee Member here.*

Committee Member: *Type the name of a Committee Member here.*

Committee Member: *Type the name of a Committee Member here.*

Department Chair/School Dean: *Type the name of the Department Chair or School Dean here.*

Appendix B: In-text references and reference lists

Students may choose to follow the formatting guidelines of a journal that is important in their field or follow the formatting guidelines that are provided here.

In either case, students are encouraged to utilize software such as EndNote or Reference Manager to aid in formatting their bibliographies and citations. The use of software will greatly decrease the amount of time required to prepare this portion of the document. A site license is available for EndNote for Michigan Tech faculty, staff, and students. Links to download the software and EndNote styles and filters appropriate for a Michigan Tech thesis or dissertation are available online [<http://www.gradschool.mtu.edu/td/endnote>]

References within the text must be provided for ideas or facts that have been paraphrased from another source, material that has been republished or modified from another source, figures or tables, and data from another source. This includes material that is copyrighted and material in the public domain.

The general format for a few common reference types is described in this appendix. Students should consult *The CSE Manual* for more information. The Graduate School maintains style files that can be used to format citations and reference lists [<http://www.gradschool.mtu.edu/td/endnote>].

Formatting references within the text

References within the text (or in-text references) typically adhere to one of the following formats:

- **Citation-sequence** – in which in-text references are numbered based on the order in which they appear in the text and are referred to by number in the text. The citation-sequence and citation-name styles may look identical in the text but differ in the way citations are listed in the reference list and numbered in the main body of the text. The in-text references may be either numbers enclosed in parenthesis or super-scripted numbers. Non-adjacent numbers must be separated by a comma with no spaces. Adjacent numbers must be separated by a dash. Place citations before any punctuation marks. Some examples follow.
 - The theorem was first proven by Smith (1). The proof was subsequently evaluated by several researchers (2-8). It was recently reaffirmed through the use of an alternative approach (9). Many of the researchers who have studied Smith's proof agree that it was highly innovative (3,5-6,9).

- The theorem was first proven by Smith¹. The proof was subsequently evaluated by several researchers²⁻⁸. It was recently reaffirmed through the use of an alternative approach⁹. Many of the researchers who have studied Smith's proof agree that it was highly innovative^{3,5-6,9}.
- **Citation-name** – in which in-text references are numbered based on the order in which they appear in the text and are referred to by number in the text. The citation-sequence and citation-name styles may look identical in the text but differ in the way citations are listed in the reference list and numbered in the main body of the text (see above).
- **Name-year** – in which in-text references must include the surname of the author and the year of publication. There are numerous variations to this simple rule. The most common variations are described below.
 - **Single author paper**
The in-text reference (Smith 2006) refers to a paper solely authored by Smith in 2006.
 - **Same author, multiple papers in one year**
Add a lowercase letter to the year to distinguish which paper is being referenced. For example, the in-text references (Smith 2007a) and (Smith 2007b) refer to two different papers written solely by Smith in 2007. The letter is also included in the reference list.
 - **Different authors with the same surname publish papers in the same year**
Include the initials of first and middle names. For example, the in-text references (Smith J 2008) and (Smith K 2008) refer to two different papers written by two different authors with the same surname in 2008.
 - **Paper with two co-authors**
Use both surnames in the in-text reference and separate the surnames with “and.” For example: (Smith and Jones 2007).
 - **Paper with three or more co-authors**
Refer only to the first author which is then followed by “et al.” For example, the in-text citation (Smith et al. 2007) refers to a paper written by Smith with more than one co-author in 2007. Note that “et” is not an abbreviation, so it does not have a period after it. Because “al.” is an abbreviation, a period is required.

- **Multiple papers within the same citation**
Sort all references chronologically, and then separate each citation with a semicolon. For example, the in-text citation (Smith et al. 2007; Smith J 2008; Smith K 2009) refers to three papers within one citation. If multiple papers are from the same year, sort those references by last name.

Formatting a reference list

There are three ways to organize a reference list, based on the type of in-text references chosen.

- **Citation-sequence** – the reference list is organized in order of appearance or a citation in the main body of the document. The first in-text reference is “1,” the second is “2” and so on.
- **Citation-name** – the reference list is alphabetized, and each reference is numbered in alphabetical order.
- **Name-year** – the reference list is alphabetized.

For **citation-name and name-year reference lists**, there are additional rules for alphabetizing the reference list. The most common rules follow.

- For content authored by individuals, alphabetize the reference list:
 - By the surname of the first author. Papers authored by a single author precede those written by the same first author with additional co-authors.
 - For multiple authors with the same surname, alphabetize by the initials of the first author to group the same authors together. If there are multiple papers by the same first author, the list is further alphabetized as follows:
 - If these items are single author publications, use the title of the reference to alphabetize further for the citation-name system. Use the year of publication to further order the references in the name-year system beginning with the earliest and ending with the most recent. If there is more than one publication in the same year, alphabetize the items by the title.

- If these items are co-authored, use the second author surname to alphabetize the list. If there is more than one item with the same second author, continue to alphabetize with the remaining authors' surnames. For multiple items with the same co-authors, use the title of the reference to alphabetize further for the citation-name system. Use the year of publication to further order the references in the name-year system beginning with the earliest and ending with the most recent. If there is more than one publication in the same year, alphabetize the items by the title.
- Ignore all instances of “a,” “an,” and “the” that may be present at the beginning of a title or organization name when alphabetizing either authors or titles. Organizations can be the author of publications, e.g., the American Society for Testing Materials, which authors a series of testing standards for materials.
- If an organization is the author of a publication, use its full name rather than its acronym to alphabetize the item in the reference list.
- If an acronym is used in the title of an article, use the acronym to alphabetize items.