



# Global Environmental Science

## Thesis Style and Policy Guide

Effective Fall 2021

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## **INTRODUCTION**

Congratulations on your progress! The submission of your thesis is the last step in the program leading to the award of your degree. The final copy becomes a permanent and official record available for public use. Because your thesis is an official addition to the body of scholarship and research undertaken at UH, we provide this manual as a guide for its preparation and submission.

Your thesis advisor is responsible for reviewing both the style and the content of your manuscript. The guidelines explicated here focus primarily on physical format. The GES Program provides a thesis template in MS Word which correspond with these guidelines. If you follow these guidelines, the format of your thesis will meet the minimal requirements. Be aware, however, that your advisor can set higher standards. Because it is your responsibility to ensure that your thesis is a professional document, you are advised to become thoroughly familiar with these instructions before you begin writing.

This guide is an adaptation of the University of Hawai‘i at Mānoa Graduate Division Style and Policy Guide.

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## **1. PROCEDURES**

### **1.1 Responsibility**

The student is solely responsible for the preparation of the final thesis according to the outline and timetable prescribed in the Thesis Proposal, which needs to be signed by both the student and advisor, and approved by the Undergraduate Chair. It is the responsibility of the student's advisor(s) to judge the acceptability of the thesis from all standpoints, including writing quality, neatness, mechanical considerations, and technical and professional competency. Advisor(s) will attest to the acceptability when they sign the signature page. Therefore, it is important that a complete draft of the thesis be reviewed and approved by the advisor(s) before the student's seminar presentation.

The student and their thesis advisor(s) are jointly responsible for seeing that the manuscript follows a correct form of scholarly style and usage. In fulfillment of this responsibility, the advisor(s) must have seen and approved the changes the student has made in response to those criticisms. The Program will also solicit the involvement of other faculty to provide additional editorial feedback.

### **1.2 Language**

The thesis, in its entirety, must be written in English. The use of another language, in particular Hawaiian words and names, is discussed in section 3.4.

### **1.3 Registration for GES 499**

A research thesis and registration in GES 499 (minimum 3 credits, maximum 6 credits) is required of all students in order to graduate from the GES program. GES 499 is a directed research course in which the student carries out a scientific project of small to moderate scope with one or more chosen advisors. Submission and approval of a Thesis Proposal is required before the Program will issue the CRN to the student for registration.

### **1.4 Application for Degree and Payment of Fees**

Student must file an Application for Degree to SOEST Student Academic Advisor, Ms. Heather Saito, and pay the diploma fee via MyUH Services. Visit the Office of the Registrar's webpage for more details. <https://manoa.hawaii.edu/registrar/student-records/graduation-commencement/> You may also visit the following webpages for information:

Deadlines: <https://manoa.hawaii.edu/catalog/calendar/>

Fees: <https://manoa.hawaii.edu/catalog/tuition-fees-expenses/>

### **1.5 Final Thesis**

An oral presentation and a written thesis in the following format must be turned in to fulfill graduation requirements. It must be read, signed and approved by advisor(s).

## 2. ORGANIZATION OF CONTENTS

The following preliminary pages precede the body of the thesis, should appear in this order, and with the exception of the title page are numbered in lowercase Roman numerals.

- Title page (no page number)
- Signature page
- Dedication page (optional)
- Acknowledgments (optional)
- Abstract
- Table of contents
- List of tables
- List of figures/illustrations/graphs/charts/maps/plates
- List of abbreviations and symbols (optional)
- Preface (optional)

The text and other pages following the preliminary pages are numbered with Arabic numerals and must be arranged in the following order:

- Text (chapters of the manuscript, including tables and figures)
- Appendices
- Notes
- Glossary (optional)
- Bibliography/references
- Index (optional)

### 2.1 Title Page

Sample A, provided at the back of this manual, illustrates acceptable thesis title page format.

Indicate your degree and field (e.g., Bachelor of Science in Global Environmental Science). Specializations (or “Tracks”) are not included on the title page.

Indicate the month and year of graduation (December, May, or August). Do not separate the month and year of graduation with a comma. Do not use the date you completed or submitted the thesis.

Advisor(s) name(s) must appear on the title page. List only your Advisor on record (i.e. the mentor who grades your GES 499) and any co-mentor (excluding graduate students) who supervised and guided you throughout your project and thesis. Graduate students should be acknowledged in Acknowledgements instead.

## 2.2 Signature Page

Obtain original signature(s) of advisor(s). Type only as many lines as there are advisor(s) signing. Refer to Sample B for signature format. In addition, the page number should be positioned consistently with the page numbers in the rest of the manuscript (centered one inch from the bottom of the page).

## 2.3 Acknowledgements

Use your discretion in making acknowledgements. It is customary to acknowledge special assistance from extramural agencies. There is no obligation that assistance received from advisor(s) be acknowledged. Acknowledgments should be couched in terms consistent with the scholarly nature of the work. Your name and the date should not appear on this page.

## 2.4 Abstract and Keywords

An abstract is required for a thesis. The abstract included with the thesis must be double-spaced and the title should simply be ABSTRACT. Make sure to include keywords at the bottom of the page.

## 2.5 Table of Contents

The table of contents is to include the following pages: acknowledgements, abstract, list of tables, list of figures, list of abbreviations and/or symbols, appendices and bibliography as well as the major sections of the text. Please note the following:

- You must have dot leaders between the end of a heading and its page number.
- Wording of headings on the table of contents must reflect wording of headings within the text precisely.
- Each new sub-level heading must be indented to distinguish it from the previous sub-level. (See Section 3.2.)
- The title page, signature page, dedication page, and the table of contents are not listed in the table of contents, however with the exception of the title page, these pages must be numbered.

TABLE OF CONTENTS	
Acknowledgments .....	iii
Abstract .....	iv
List of Tables .....	vi
List of Figures .....	vii
List of Abbreviations .....	viii
Preface .....	ix
Chapter 1: Introduction .....	1
Historical Backgrounds .....	2
Cultural Backgrounds .....	3
Chapter 2: Method .....	11
Mail Survey .....	13
California .....	15
Hawai'i .....	26
Phone Survey .....	32
California .....	33
Hawai'i .....	41
Chapter 3: Results .....	50
Geographic Demographics .....	54
Interviewer Biases .....	81
Chapter 4: Conclusion .....	100
Appendix A: Survey .....	124
Appendix B: Interview Transcripts .....	142
References .....	163

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## 2.6 List of Tables

The term “table” applies to numerical and statistical data set in vertical or horizontal alignment. If there are tables in your text or appendix, a list of tables must be included. The list of tables is on a page by itself and arranged in the same general format as the table of contents. Type the table number in Arabic numerals, and the titles in Sentence case, with dot leaders extending to the page number. Please note:

- Titles may be shorter than they appear in the text as long as they are not misleading. Titles may not be longer than the titles in the text.
- Numbering of tables. You have two options: (1) you may begin by numbering the first table with “1” and continue to number your tables consecutively throughout the entire manuscript; or (2) using a decimal numbering system you may number your tables consecutively within each chapter. Thus, if chapter four has three tables and chapter five has three tables, the numbering would be as follows: 4.1, 4.2, 4.3, 5.1, 5.2, 5.3. The same numbering system applies to figures.

LIST OF TABLES	
<u>Table</u>	<u>Page</u>
1. Demographic Data for 1989.....	9
2. Demographic Data for 1990 .....	12
3. Predicted Results of 1989 Survey, by Age .....	21
4. Predicted Results of 1989 Survey, by Residence .....	36
5. Predicted Results of 1990 Survey, by Age .....	49
6. Predicted Results of 1989 Survey, by Residence .....	58
vi	

- Single space with titles which are longer than one line, but double space between each entry.

## 2.7 List of Charts, Graphs, Figures, Illustrations, Maps

This list is also placed on a page by itself and arranged in the same general format as the list of tables. Designate figure numbers with Arabic numerals, and plate numbers, if any, with capital Roman numerals. If the thesis contains both figures and plates, arrange them on separate lists.

## 2.8 List of Abbreviations and/or Symbols

If abbreviations and/or symbols are needed in the text, a list should be provided to explain their definitions or meanings. The list is to be placed on a separate page and included after the list of figures.

LIST OF FIGURES	
<u>Figure</u>	<u>Page</u>
1. Map of O’ahu .....	18
2. Bernoulli Curve, Region A .....	50
3. Bernoulli Curve, Region B .....	51
4. Bernoulli Curve, Region C .....	52
5. Distribution of Survey Data .....	74
v	



## **2.9 Preface**

A preface, while optional, enables you to explain your purpose and perhaps justify your choice of a topic. If utilized, it is part of the preliminary pages (numbered with lowercase Roman numerals) and, therefore, precedes the main text.

## **2.10 Text**

The organization of the text varies with the discipline and the subject matter. If the thesis is divided into chapters, each chapter must be titled and must begin on a new page. Chapter headings must be centered, and a consistent font size and style should be used throughout the paper. If you are dividing your thesis into “parts” as well as chapters, the designations of “Part I,” “Part II,” etc., must appear on a separate cover page. Each chapter begins on a new page. Chapters within parts are numbered consecutively through the manuscript (*not* beginning over with 1 in each Part).

## **2.11 Appendices**

Materials not vital to the text, but which supplement the text, are placed in an appendix or appendices. Appendices may include schedules, lists, questionnaires, tests and forms used to collect data, as well as case studies and series of plates, graphs or charts which would take up too much space or which would be distracting if placed in the text. Do not use cover pages; simply center the title of the appendix at the top of the first page of the appendix (following the format of chapter titles).

List each appendix on a new page. Each type of material (e.g., tables, questionnaires) forms a separate appendix, which must be labeled separately (Appendix A, Appendix B, etc.); each appendix must be titled (title should give indication of the content/material that is included in the appendix). If only one appendix is used, it should be designated simply “Appendix”, not “Appendix A.”

The appendices must meet the specifications for other pages in the text with respect to margins, appropriate pagination, etc.

## **2.12 Bibliography/References**

Use a bibliographic style that is professionally accepted in your field. The bibliography appears immediately after the last page of the text unless an appendix intervenes, in which case it follows the appendix. The references must be the last element of the thesis unless there is an index.

The bibliography must include every reference mentioned in the body or cited in the footnotes of the text. Under no circumstances should materials that have not been used in the preparation of the thesis be cited. The heading “Literature Cited” may be used when the list includes only those references which have been cited in the text or footnotes. In every case, consult with your advisor(s) as to the form and arrangement of the bibliography.

### 3. TEXT FORMAT

#### 3.1 Style

With the exception of the guidelines in this booklet, all aspects of style, usage, and format are left to the discretion of the advisor(s). Students and their advisor(s) are urged to refer to one of the leading style guides or to the style of a leading journal or publication in the discipline, for those aspects left to their discretion.

#### 3.2 Headings in the Text

It is important that headings and subheadings be consistent throughout the document. Not only does this give the document a professional appearance, it provides clarity and guidance to the reader. Please heed the following guidelines:

Major Headings. These include acknowledgements, abstract, table of contents, lists of tables and figures, preface, chapter headings, appendices and bibliography. Begin each major heading on a new page, followed immediately by the text. All of these headings must be done in the same size and style (e.g., all capital letters, all bold letters). The chapter heading appears only on the first page of the chapter.

Subheadings. Each different level must be distinguished by a different style. For example, the first sub-level might be centered and underlined, and the second sub-level might be flush left with no underline. Be sure that these styles are used consistently! Although each different level must be distinguished, the same level must have a consistent style throughout the work. Subheadings should NOT begin on a new page (unless, of course, the previous section ended at the bottom of a page).

Each different sub-level must be listed appropriately in the table of contents. Each new sub-level is indented a little farther right than the previous level in the table of contents. The title of the thesis should appear only on the title page. Please note that in the following examples, the dotted lines represent text.

#### 3.3 Margins

Standardized margins are required on every page to ensure that no part of the thesis is cut off when it is bound and trimmed. The left margin must be 1 ½ inches from the edge; all other margins must be at least 1 inch from the edge. The only exception is facing pages, which should have the 1 ½ inch margin on the right side.

Page numbers must fall **within** the margins. See Figure 1 and 2 on the next page.

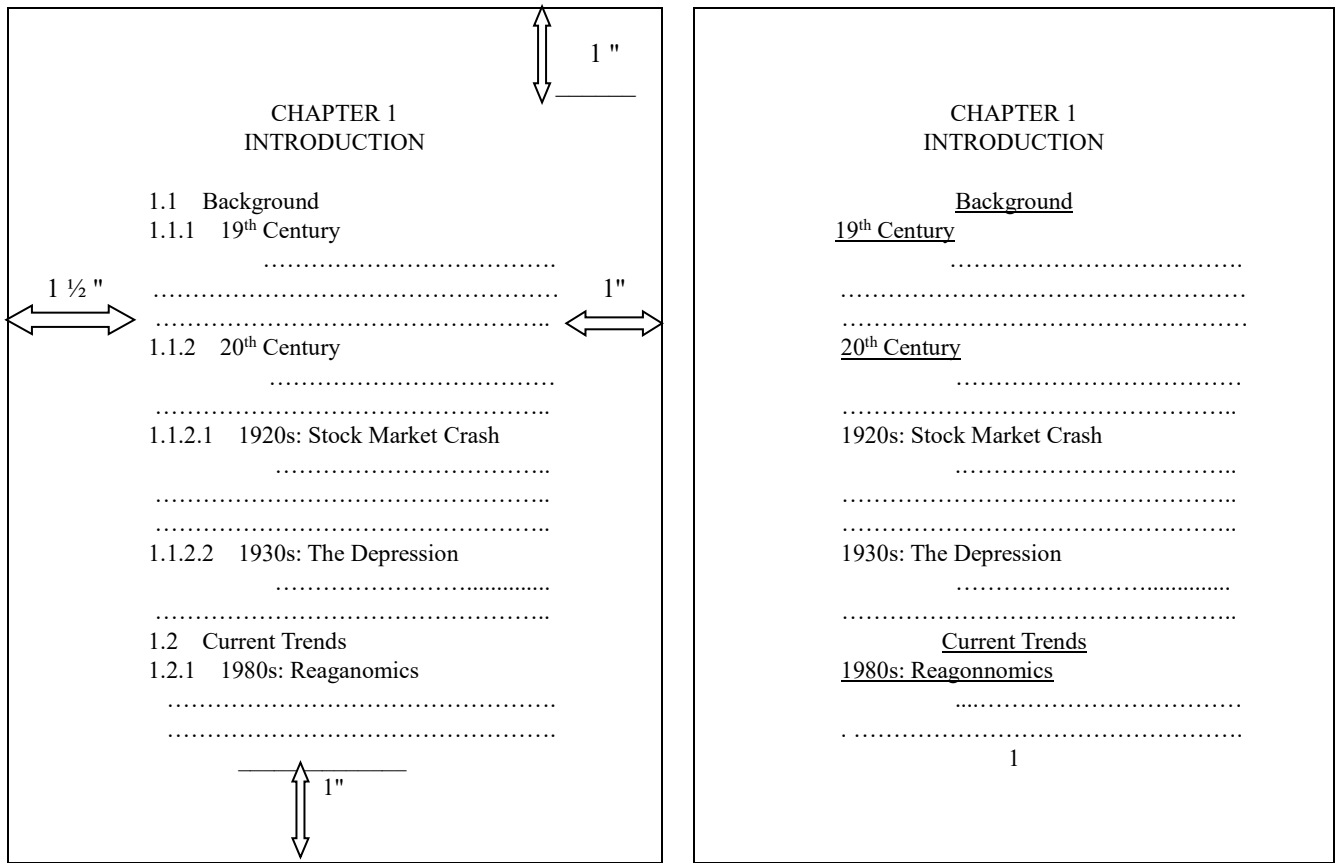


Figure 1. Examples of Subheading and Margins

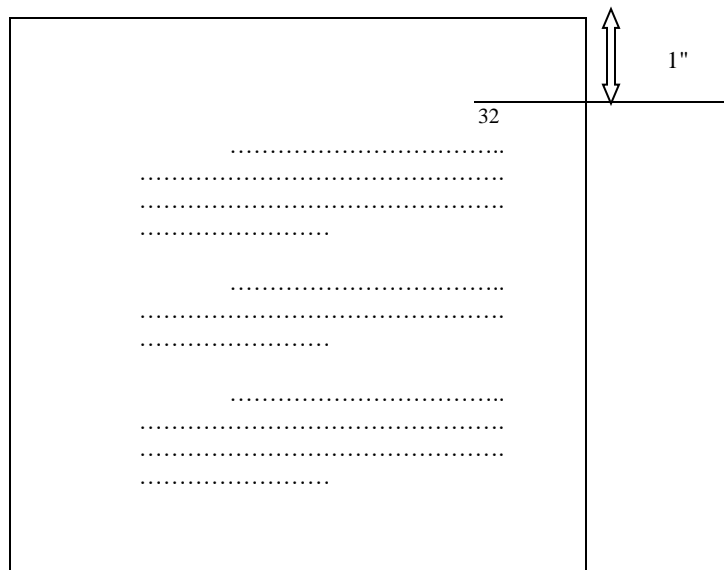


Figure 2. Example of Top Margin with page number in upper right

### 3.4 Use of Languages other than English

Choose a style and be consistent. The Chicago Manual of Style suggests that isolated words or phrases in a foreign language be set in italics, but underlining can also be used. A quotation entirely in a foreign language should only be enclosed in quotation marks, not italicized or underlined. Also, foreign words commonly used in English (i.e., they can be found in a good English dictionary) should not be distinguished.

The University of Hawai‘i is an indigenous-serving institution in Hawai‘i, and correct spelling and display of Hawaiian language is essential for UH websites and publications. Consult appropriate resources to ensure proper orthography, especially diacritical marks: the ‘okina (also called a glottal stop) or vowels with kahakō (also called a macron). The ‘okina is a specific punctuation mark, and not a single quotation mark, accent grave, or “tick mark.”

Resources:

1. Books: [Hawaiian Dictionary, Revised and Enlarged Edition](#), by Mary Kawena Pukui and Samuel H. Elbert and [Place Names of Hawai‘i](#), Revised and Expanded Edition, by Mary Kawena Pukui, Samuel H. Elbert and Esther T. Mookini.
2. Online dictionary: [Nā Puke Wehewehe ‘Ōlelo Hawai‘i](#) draws from Pukui and Elbert’s dictionary and *Place Names* and was developed by UH Hilo with support from UH Mānoa.
3. Language experts: UH Mānoa—[Ka Hālau ‘Ōlelo Hawai‘i ‘o Kawaihuelani](#), Center for Hawaiian Language  
UH Hilo—[Ka Haka ‘Ula O Ke‘elikōlani](#), College of Hawaiian Language

### 3.5 Line Spacing/Widows and Orphans

Double spacing is required except where style calls for single spacing (e.g., footnotes, indented quotations, tables).

Widows (e.g., the last line of a paragraph as the first line of a page) and orphans (e.g., a heading or first line of a paragraph as the last line on a page) are not acceptable.

### 3.6 Punctuation

Many common manuscript problems involve punctuation, especially the use of commas. For example, when used with quotation marks, commas, and periods are placed within the quotation marks while colons and semicolons are placed outside of the quotation marks. Also remember to use commas after the terms “e.g.” and “i.e.”

### 3.7 Hyphenation

Consult a dictionary for correct hyphenation. As a general rule, no more than three hyphens at the end of a line per page are acceptable. It is also not acceptable to have more than two consecutive hyphens at the ends of lines.

### **3.8 Pagination**

Every page in your manuscript must be counted in the numbering. A page number must appear on every page with the exception of the title page. Placement, size, and style of page numbers must be consistent throughout. Page numbers should appear centered one inch from the bottom of the page. This includes the signature page as well as pages with tables, figures, appendices, etc.

Page numbers with letter suffixes, such as 10a, 10b, etc. are not acceptable. Do not write the word “page” before the number. No dashes, periods, underlining, or any other marks may appear before, after, or under the page numbers.

#### **3.8.1 Preliminary Pages**

Preliminary pages (see Section 2. for a detailed list) are numbered in lowercase Roman numerals (ii, iii, iv, etc.), beginning with the signature page, which should be numbered “ii,” and so on to the end of the preliminaries. (Note: The title page counts as page “i” but the number is not placed on the page.) Placement of preliminary page numbers should be consistent with the placement of page numbers throughout the text.

#### **3.8.2 Body of Thesis**

These pages are numbered in Arabic numerals (1, 2, 3, etc.), beginning with the first page of Chapter 1 and continuing consecutively to the last page of the bibliography. The page number should continue from where the last preliminary page ends. For example, if the last preliminary page is “vi”, then the first page of Chapter 1 should be “7”.

#### **3.8.3 Chapters**

Each chapter must begin on a new page. Chapters should be numbered with either Arabic or Roman numerals. Acceptable methods of indicating chapters are as follows:

CHAPTER 1                      or                      CHAPTER 1. INTRODUCTION  
INTRODUCTION

#### **3.8.4 Facing Caption Pages**

Facing caption pages and their corresponding illustrations must have their own page numbers. For example, if the facing page is page 4, then the page with the figure will be page 5. The caption should face the same direction as the figure.

### **3.9 Running Headers**

Do not use running head.

## **4. ILLUSTRATIONS**

### **4.1 Tables**

The term “table” applies to numerical and statistical data set in vertical or horizontal alignment. Titles should be self-explanatory, concise, and consistent in form and font style throughout the thesis.

#### **4.1.1 *Format of Tables***

Type the table number and caption above the data. Titles should begin with the word “Table,” followed by a number, and a period. The title, table number, and caption may be centered or flush left but must be handled consistently throughout the manuscript. The title, table number, and caption may be written in all uppercase or in uppercase and lowercase letters, but must be in a consistent manner for subsequent tables.

#### **4.1.2 *Placement***

Tables over half a page in length should be placed on a separate page. Wide tables should be placed broadside on the page with the table number and the caption at the binding side of the page (i.e., with the left-hand margin as the “top” of the page). The first line should begin no higher than 1 ½ inch from the binding side of the page and the last line should end no lower than 1 inch from the bottom.

Long tables may be continued from page to page, in which case the table number and caption on succeeding pages should appear as follows:

Table 3. (Continued) Number of Tractors Employed in Agriculture in the U.S.S.R.

#### **4.1.3 *Footnotes***

Footnotes for tables are to be indicated by standard symbols (-, \*, etc.) or lowercase letters (a, b, etc.). Do not use numbers for footnotes to tables. Footnotes are placed at the bottom of the table (not the bottom of the page).

### **4.2 Figures**

The term “figure” refers to illustrations such as graphs, charts, diagrams, photographs, and maps, but not statistical data presented in tables. As with tables, figure titles should be self-explanatory, concise and consistent. Figure captions should be placed at the bottom of the figure, even if the figure is placed broadside on the page.

For placement of figures within the thesis, see section 4.1.2. Please note that if you choose to group your figures together in an appendix or at the end of your text, they should follow your tables (if any), and the references should be the last element of your thesis.

### **4.2.1 *Format of Figures***

Number figures consecutively in Arabic numerals throughout the thesis, beginning with “1” or consecutively within each chapter.

### **4.2.2 *Maps***

Each map should have an accurate bar-type scale, some indication of longitude and latitude, and a North arrow for orientation.

### **4.3 *Placement of Illustrations and Figures on the Page***

If it is necessary to turn an illustration or table sideways on the page, the top of the illustration or figure must be on the left (binding) edge of the paper.

## 5. THE FINAL COPY

The physical appearance of theses must be immaculate and convey an impression of pride and quality.

It is important that format selected be generally readable by current and future potential readers. The Portable Document Format (PDF) version is required to upload your document through [ScholarSpace](#). In addition, Adobe Acrobat files can be indexed and searched by keywords.

- No limits have been set for file size. Please be sensitive to Web distribution and file size, so consider a good balance between each file size and how practical it will be for online access. Sometimes materials can be broken down into smaller, more manageable sizes or various resolutions may be used to achieve a similar outcome.
- Electronic theses and dissertations are expected, in most part, to retain traditional typographic conventions and thus be equivalent in many ways to their paper predecessors.

### 5.1 Manuscript

Adobe PDF is required. NO password protection. You are responsible for the appearance of your manuscript in PDF. It will appear and be downloaded exactly as you submit it.

### 5.2 Fonts

Any standard typeface is acceptable as long as the same typeface is used throughout the manuscript, with the exception of certain tables, figures and appendix material, which may be put in a different type. The type size must be 10 point or larger for all material in the text. (This includes any reduced material which may be included.) Italics may be used for non-English words and quotations.

#### 5.2.1 *Acceptable TrueType Fonts and Point Sizes*

The following are Web fonts which were designed for easy screen readability. Since many readers are likely to view and/or use your thesis onscreen, any of the following fonts and their corresponding recommended size would ensure readability of your text.

<b>Font</b>	<b>Size</b>
Arial	10pt
Georgia	11pt
Times New Roman (preferred; see GES Thesis Template)	12pt
Trebuchet MS	10pt
Verdana	10pt



## 6. THESIS SUBMISSION CHECKLIST

Before submitting your thesis, check to see that you have done the following:

- Do you have the appropriate margins (1½ inches on the left side and 1 inch on the top, bottom, and right sides)? Remember that every page in the thesis must have these margins.
- Is the information on the title page accurate?
- Does your signature page have original signatures from your advisor(s)?
- Have you applied Hawaiian diacritics where required?
- Are the titles and page numbers in the Table of Contents and Lists of Tables and Illustrations correct? Are they formatted correctly and with dot leaders?
- Does every page have a page number? Is the numbering of pages consecutive, with no duplicate or missing numbers? Are the preliminaries numbered with Roman numerals and the text with Arabic numbers? Is the placement, size, and font style of your page numbers consistent throughout the paper?
- Have you checked your major headings and subheadings to ensure that they are consistent throughout the text?
- Have you proofread your manuscript? Make sure proper names are spelled correctly.

The Program will not accept your thesis until any and all issues are resolved. If your corrected thesis is not submitted by the deadline specified on the Thesis Timeline, your graduation may be deferred.

## 7. RESOURCES

If you need help with writing, consider reaching out to the following resource(s):

- The Writing Center at Mānoa:  
<https://sites.google.com/a/hawaii.edu/writingcenter/welcome>

The following is a list of suggested tutorials for some common issues that students have faced in the past. These tutorials are specifically for Microsoft Word.

- How to Create and Update a Table of Contents: [https://youtu.be/cbKYRi\\_PvjI](https://youtu.be/cbKYRi_PvjI)
- How to Create and Update a List of Tables: <https://youtu.be/z6NP31Q1w3M>
- How to Format Page Numbers: <https://youtu.be/JDqPR98mIZM>

**SAMPLE A: TITLE PAGE FOR THESIS**

*(do not type "Sample" or "Title Page" on the title page your submit!)*

PHYSICAL AND BIOGEOCHEMICAL PROPERTIES  
OF THE ALA WAI CANAL

A THESIS SUBMITTED FOR PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF

BACHELOR OF SCIENCE

IN

GLOBAL ENVIRONMENTAL SCIENCE

MAY 2015

By  
John H. Smith

Thesis Advisor(s)

Harley Davidson  
Lincoln Ford

**SAMPLE B: SIGNATURE PAGE FOR THESIS**

*(do not type "Sample" or "Signature page" on the title page your submit!)*

We certify that we have read this thesis and that, in our opinion, it is satisfactory in scope and quality as a thesis for the degree of Bachelor of Science in Global Environmental Science.

THESIS ADVISOR(S)

---

Harley Davidson  
Department of Oceanography

---

Lincoln Ford  
Department of Geology