

Dickinson College
Department of Mathematics and Computer Science

Honors Thesis Style Guide

In the pursuit of departmental honors, students are required produce three written documents for submission either to the thesis advisor and committee. The purpose of this guide is to describe the format for these documents. For details on the contents of the document and deadlines for submission please see the *Requirements for Departmental Honors* document on the Department's web page.

Format of Required Documents:

The following pages describe the formatting requirements for the Formal Research Proposal, the Research Report and the Honors Thesis.

Reference & Citation Format:

References and citations appearing in the honors thesis must use a uniform, consistent and accepted format. Your research advisor may provide you with an example of a format that is commonly used in your field.

In lieu of a specific format specified by your advisor you may use the American Psychological Association (APA) style. This section presents a small set of examples that will cover many of the types of references and citations that will appear in an honors thesis. If a particular type of reference or citation is needed, but does not appear in this section, please see one of the many published or on-line APA style guides.

Citation Format:

In the APA style citations within the text appear either as the year of publication in parenthesis following the use of the authors' name(s) in the text, or as the authors' names and a year of publication in parenthesis at the end of a sentence. For example:

Gould (1989) suggests that co-evolutionary dynamics may be a source of innovation and adaptation in evolution.

It has been suggested that co-evolutionary dynamics may be a source of innovation and adaptation in evolution (Gould, 1989).

When multiple sources are used as references for a single statement, the second form of citation is preferable. In such a case, all sources are listed in a single set of parenthesis and are separated by semicolons. For example:

Researchers in the field of artificial life have studied the factors that affect the genetic assimilation of acquired characteristics through the evolutionary phenomenon commonly known as the Baldwin effect (Hinton & Nowlan, 1987; Mayley, 1996; Ackley & Littman, 1991).

Reference Format:

A list of all cited work appears at the end of the thesis. Only work cited within the text should appear in the listed references.

Books:

Gould, S. (1989). *Wonderful life: Burgess shale and the nature of history*. New York, NY: W. W. Norton.

Driver, P. & Humphries, N. (1988). *Protean behavior: The biology of unpredictability*. Oxford: Oxford University Press.

Cormen, T., Leiserson, C., Rivest, R., & Stein, C. (2001). *Introduction to Algorithms* (2nd ed.). Cambridge, MA: The MIT Press.

Roeder, K., Howdeshell, J., Fulton, L., Lochhead, M., Craig, K., Peterson, R., et.al. (1967). *Nerve cells and insect behavior*. Cambridge, MA: Harvard University Press.

Journal Articles:

Mayley, G. (1996). Landscapes, learning costs and genetic assimilation. *Evolutionary Computation*, 4(3), 213-234.

Hinton, G. & Nowlan, S. (1987). How learning can guide evolution. *Complex Systems*, 1, 496-502.

Nolfi, S., Elman, J. & Parisi, D. (1994). Learning and evolution in neural networks. *Adaptive Behavior*, 3(1), 5-28.

Articles in Edited Books or Conference Proceedings:

Belew, R. (1989). When both individuals and populations search: Adding simple learning to the genetic algorithm. In J. Schaffer (Ed.). *Proceedings of the third international conference on genetic algorithms* (pp. 34-41). San Mateo, CA: Morgan Kaufmann.

Ackley, D. & Littman, M. (1991). Interactions between learning and evolution. In C. Langton, C. Taylor, J. Farmer & S. Rasmussen (Eds.). *Proceedings of Artificial Life II* (pp. 487-509). Reading, MA: Addison-Wesley.

Hamilton, W. (1982). Pathogens as causes of genetic diversity in their host populations. In R. Anderson (Ed.). *Population Biology of Infectious Diseases* (pp. 269-296). Berlin: Springer-Verlag.

On-line Journal:

Randall, M. & Tonkes, E. (2002). Intensification and diversification strategies in ant colony system. *Complexity International*, 9. Retrieved June 10, 2003 from <http://journal-ci.csse.monash.edu.au/vol09/ranal01/>.

Web Site:

Obitko, M. (1998). Introduction to genetic algorithms with java applets. Retrieved June 10, 2003, from <http://cs.felk.cvut.cz/~xobitko/ga/>.

Thesis Formatting:

The following pages provide examples of the formatting requirements for the Research Report and Honors Thesis documents.

Elements on the following pages surrounded with < > are to be replaced with the indicated information and the < > are not to be included in the final document. For example, on the title page:

Submitted in partial fulfillment of the requirements
for departmental honors in <Major>
Dickinson College, <academic year>

Becomes something like:

Submitted in partial fulfillment of the requirements
for departmental honors in Computer Science
Dickinson College, 2018-2019

Every effort should be made to ensure that the documents submitted to your thesis advisor follow these formatting examples.

<The Title of your Honor's Project Goes Here
Using Multiple Lines if Necessary (20 pt)>

by

<Your Name Here (16 pt)>

Submitted in partial fulfillment of the requirements
for departmental honors in <Major>
Dickinson College, <academic year>

<Title & Name>, Advisor
<Title & Name>, Committee Member
<Title & Name>, Committee Member

<Month> <Day>, <Year>

<page number, i - does not appear>

The Department of Mathematics and Computer Science at Dickinson College hereby accepts this senior honors thesis by <Your Name Here>, and awards departmental honors in <Major>.

<Advisor's Name> (Advisor)

Date

<Name> (Committee Member)

Date

<Name> (Committee Member)

Date

<Use additional lines as necessary>

Date

<Chair's Name> (Department Chair)

Date

Department of Mathematics and Computer Science
Dickinson College

<Month> <Year>

<page number, ii - does not appear>

Abstract

<The Title of your Honor's Project Goes Here
Using Multiple Lines if Necessary (16 pt)>

by
<Your Name Here (12 pt)>

The text of the abstract appears in a 12-point serif font such as Times. The abstract is fully justified and double-spaced. More than one page may be used if necessary. However, an effort should be made to limit the abstract to a single page.

Acknowledgments

Any acknowledgments that you would like to make thanking those who have been particularly helpful and/or supportive of your work. The text of the acknowledgments appears fully justified and double spaced in a 12-point serif font such as Times.

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Chapter 1

<CHAPTER ONE TITLE HERE (14 pt)>

1.1. <Title of Section>

Each chapter begins on a new page. The word "Chapter" followed by the chapter number appear centered and underlined in a boldface 14-point serif font (i.e. Times) on the first line of the page. Following one blank 14-point line, the chapter title appears in all capital letters in boldface 14-point serif type. Following three blank 14 point lines, the section heading appears in bold 12-point serif type.

All body text is 12-point serif type. The body text is double-spaced and is fully justified. All Paragraphs are indicated by a 1/2 inch indentation of the first line of the new paragraph. There is no additional spacing between paragraphs.

Page margins are 1.25 inches on the left edge, and 1.0 inch on the top, right and bottom edges. Page numbers appear centered, one half inch from the bottom of each page.

1.1.1. <Title of Sub-Section>

Sub-section headings appear in 12-point bold italic serif type and are three blank 12-point lines below the preceding paragraph.

1.2. <Title of Section>

...

Chapter 2

<CHAPTER TWO TITLE HERE (14 pt)>

2.1. <Title of Section>

All figures that appear in the document must be reference within the text, for example this text refers to figure 2.1. Each figure appears at the first convenient location after it is referenced within the text. Figure placement should not result in large white spaces at the bottoms of pages. Simply move the figure later in the text to allow text to fill the previous page. Figures appear centered with a caption below, for example see figure 2.1 below. Figures are numbered sequentially within chapters, for example the first figure in chapter 2 will be figure 2.1.



Figure 2.1: The Dickinson College Wordmark. Figure captions are single spaced, set in a 12-point serif font and are indented 1 inch on both the left and right.

A single blank 12-point line appears above the figure, between the figure and the caption and below the figure caption.

2.2 <Title of Section>

Equations appear indented 1/2 inch from the left margin, and appear after they are referenced by number in the text, for example see equation 2.1. Equations are numbered sequentially within chapters and equation numbers appear in parenthesis 1/2 inch from the right margin.

$$\frac{d}{dx} f(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h} \quad (2.1)$$

A single blank 12-point line appears both above and below the equation.

2.3. <Title of Section>

Section headings should not be orphaned on a page. When only a section heading and one line or less of text would appear on a page the section heading and the following text should be moved to the subsequent page.

Tables are numbered sequentially within chapters and independently of figures. For example the first table in chapter 2 will be table 2.1. Like figures, table placement should not result in large white spaces at the bottoms of pages. Simply move the table later in the text to allow text to fill the previous page. Tables appear indented 1 inch from the left margin with a caption above, for example see table 2.1.

Table 2.1: Student application and enrollment data for Dickinson College from 1999-2001. Table captions are single spaced, set in a 12-point serif font and are indented 1 inch on both the left and right.

<u>Year</u>	<u>Applications</u>	<u>Enrollment</u>
1999	3434	620
2000	3801	594
2001	3820	611

A single blank 12-point line appears above the table caption, between the caption and the table and following the table.

Appendix A

<APPENDIX TITLE HERE (14 pt)>

The contents of an appendix are formatted using the same formatting specifications as a chapter in the body of the thesis.

References

A list of all of the references cited within the body of the thesis using the format indicated by your advisor or the APA format described above.