GUIDELINES FOR STUDENTS
UNDERTAKING SENIOR THESIS
(GEOLOGY 489 -490)
Prepared by J. M. Erickson

GUIDELINES

The following guidelines are presented to aid the student who is preparing a Senior Thesis in Geology. They should serve as an instrument for both mechanics, schedule, and, to a lesser extent, philosophy of the undertaking. It is expected that you will adhere to these guidelines absolutely.

The Thesis

The Senior Thesis is the written product resulting from serious, in-depth research of a particular topic. It is not a summary of the previous research of other scientists; rather it is expected to be a contribution of new knowledge which usually will have a firm foundation in the previous work of others. Normally, the proper preparation of a Senior Thesis will require more than one semester of work and students are encouraged to begin planning for such an undertaking, if desired, at the time that they begin their major in Geology.

Thesis Advisor

While it is unlikely given the present size of the department your thesis may be read by as many as three members of the Geology faculty, one of whom will have the responsibility for giving particularly close guidance throughout its preparation. This person is your "Thesis Advisor," a member of the Geology Faculty with whom you have thoroughly discussed your research topic, methods, and goals. Generally this is the person with whom you designed the research project initially and the one who has guided your research thereafter. He or she should be kept well informed on your progress at all times.

Your Thesis Advisor and the other faculty readers who may examine the various drafts of your thesis do so to constructively criticize the content, approach, grammar, structure, organization, validity and overall quality of your work. This is done with the intent of helping you to produce the best possible product from your work. In such an endeavor you are expected to work independently and with proper self-motivation, albeit with appropriate guidance. The quality of your final product will, however, ultimately rest with you.

Please recognize, in particular, that you are not the only student preparing such a thesis. Each faculty member may have several theses to read and to comment upon. For that reason you are responsible for careful adherence to the time schedule set out by your advisor for thesis production. If you miss a deadline it is probable that your thesis will not receive adequate attention and your total effort will suffer proportionately and/or final submission will be delayed. Also, please realize that the schedule deadlines are "last days" to hand in the various drafts; drafts would be welcomed in advance of those deadlines.
The student is responsible for routing his thesis drafts to each faculty reader (if more than one). A faculty member may indicate, by so writing on a thesis draft, that he does not wish to be a reader for that particular thesis. In doing this that faculty member takes no further responsibility for the written progress of the thesis, nor may he or she make corrections or changes in the later (particularly the final) drafts unless at the expressed request of the student. Please note that, due to faculty loads within the department, it is rare that multiple faculty readers will be involved at present. The thesis advisor has primary and ultimate responsibility for reading drafts and approving the final product.

Advisor’s corrections are required changes to the drafts. All faculty comments on the thesis should be discussed with that faculty member and appropriate corrections should be made in the final draft. Corrections that alter the interpretation or meaning of your scientific interpretations must be carefully discussed by you and your advisor who should generally not be making unjustified emendations to your interpretations. However, it is not uncommon for your advisor to ask you to “dig” a little deeper into the literature or data set, provide more background or context, and rethink interpretations or implications in early drafts. Completion of a thesis is an iterative process: expect to submit and correct numerous drafts.

Evaluation

Evaluation of your thesis will be conducted by your Faculty Advisor. Understand that, just as the thesis is a culmination of research conducted over a period of time, so, too, the evaluation is a culmination of many evaluations of the scholarship you have employed during the research. The final product and the final evaluation should mature together in such a way that you achieve a product of superior quality and you gain the appropriate recognition for it.

Completion of the Senior Thesis in Geology is the formal step necessary for eligibility to receive an "Honors" degree in Geology, but that completion does not in itself automatically guarantee the Honors degree. It does guarantee that you will receive credit in Geology 489 and/or 490 commensurate with the evaluation given to your thesis. It is anticipated that thorough scholarship coupled with close consultation with Geology faculty will normally produce a finished product of Honors caliber. The Chair then makes his/her recommendation for same to the Registrar. Graduation with Departmental Honors, however, is ultimately a University decision based upon each individual's grade point average. A 3.5 GPA, or above, in your major is required to meet general university rules and unfortunately, even if your GPA is close, rounding upwards is not permitted.

MECHANICS OF PREPARATION

It is expected that all theses will be based upon professional skill, high quality, and thorough scholarship. These attributes can best be demonstrated to others by a thesis which has employed all of these properties during its preparation. The following guidelines to assure the quality of the final product and students are expected to adhere to them.

Standard practice involves the production of your thesis through the use of a word processing program. The University has used, and will likely continue to use, MS Word® as its
word processor of choice. You are encouraged, but not required to use Word, although if you don’t you will be responsible for compatibility issues. Without doubt you will also use a number of other software programs as you prepare graphics and illustrations for your thesis. Eventually these will be merged into the text of your document and converted to a file using pdf format. Exceptions may include large maps, cross-sections, extensive data sets, or other preapproved appendices, storage devices, or items as necessary.

Experience has shown that there are a number of steps you should take to safeguard your work as your thesis progresses. These include:

1. Always keep a back up copy of all text and data files and update it every time you work!!

2. Options include the personal storage drive allotted by the University, dedicated memory sticks, a personal computing device, or a hard drive. Small portable hard drives with up to a Terabyte of memory are now less than $125.00 and would make an excellent investment. In exceptional circumstances you may need to consult with IT about how best to store, access, and protect your data.

3. Be wary of viruses every time you use a new computer. Unprotected computers and unchecked disks have played havoc with many theses and have led to real mental distraction when the deadline is close! By using protection these problems can be prevented.

4. Be wary of public access computers, even those in the majors room. Please let one of us know if you have trouble with a computer in the major’s room. We cannot arrange to have the problem addressed if we don’t know about. Do not rely on these computers for personal storage.

FORMATTING STANDARDS

Margins - The margins must be one and one-half inches on the left and one inch on the other sides.

Preparations

1. Prepare a one-page, typed, outline of your thesis and present this to your Thesis Advisor by the appropriate date (see schedule).

2. Follow a standard style and usage throughout. A Manual for Writers of Research Papers, Theses, and Dissertations (Eighth Edition) by Kate L. Turabian, 464 Pages, Published 2013, ISBN-13: 978-0-226-81638-8 is often used for general format. Format of a standard journal in the field is also appropriate if your advisor agrees. Consistent format outline should follow that presented below:

a) Preliminaries - These are numbered in small Roman numerals and included in the following order:

1) Title page (see sample Appendix A)
2) Blank page  
3) Approval page (see sample Appendix B)  
4) Preface material (including acknowledgments)  
5) Table of contents  
6) List of Tables w/page references  
7) List of Illustrations w/page references  
8) Abstract

b) Text - Includes introduction and main body of text including large divisions and important minor divisions with headings and appropriate illustrative or tabular material.

c) Plates - if thesis is a Paleontological thesis that requires photographic plates. (Large maps and folded charts will be in a packet in rear of thesis).

d) References Cited - All references of communications cited in the thesis must appear in this section. They must follow a consistent format as described in "3" below. Proper attention to this section is a direct reflection upon your quality of scholarship. Cite only references used in the thesis.

e) Appendices - These often contain important records of data from your research which has been summarized or otherwise used in your text. They must be cited in the body of the text and should be titled "Appendix I," etc. While it is often customary and appropriate to summarize some of your data; all of the data that you have collected must accompany the thesis. The appendices are often the appropriate place for this data.

3. Agree in advance with your Faculty Advisor and readers as to the bibliographic style best suited to your thesis. It is recommended that general theses follow the style of current Geological Society of American Bulletin.

Footnotes should NOT be used in preparation of a geological thesis. References in the text should be made by citing author and date of the appropriate article or book. Proper practice of this during preparation of the draft will save much time in completing the final work.

4. An original and four complete copies of your final thesis must be prepared on heavy weight, high rag content paper (see below). They will be distributed as follows:
   Original printed copy - Geology Department Library  
   Copy #1 - Valentine Library  
   Copy #2 - Thesis Advisor  
   Copy #3 - your own signed copy  
   Copy #4 - O DY Archival copy  
   (Copy #5 - Dean's copy if you have received financial aid from the Dean's fund.)

You will receive your bond copy of the thesis once they are returned from the bindery.

Special arrangements must be made for maps, charts, or diagrams larger than single-page size. PLAN AHEAD.
5. Paper of high rag content (20-25%) and twenty pound weight must be used for all copies and the department will bear the expense for this and the binding. Do not attempt to print out your thesis on this expensive paper until you are sure it is finished, correctly formatted, and proof read. Any standard type-face (Times New Roman, Arial, or Calibri) and 12 point font is acceptable, but the same face must be used throughout except that appendix material or legends on charts may be put in another type. Make sure that every copy, including figures and photographs, is clearly legible and of high quality. This is a permanent record of your hard work so make sure its appearance reflects your efforts.

All parts, except tables or appendices, or multi-sentence quotations, must be double spaced. Each page, except the blank page following the title page, should be assigned a number. The following numbering should be used:

a. The preliminaries
For the preliminaries small Roman numerals (i, ii, iii, iv, etc.) are used. The numbering should begin with ii, the title page counts as page i but the number does not appear. The blank page is not counted or numbered. Numbers should appear at the center of the bottom of the pages.

b. Text, illustrations, appendices and references
For the remainder, including the text, illustrations, appendices, and references, Arabic numerals are used. Each page must be numbered. Do not use letter suffixes such as 10a, 10b, etc. The numbering should begin with 1 and run consecutively to the end. On pages carrying a major heading such as the first page of a chapter or of the references, the page number is placed at the center bottom. Other pages are paginated at the center top.

c. The listing of pages in the Table of Contents should commence with Preface material.

6. Abstract - The abstract should provide a succinct account of the thesis to enable a reader to determine whether or not it is advisable to read the entire thesis. The abstract should include a statement of the problem, the procedure or methods (if unusual), the results and the conclusions. The length must be limited to 250 words. Pagination should be as for other parts of the preliminaries. The word ABSTRACT should appear as a centered, capitalized heading as should the other headings INTRODUCTION, DISCUSSION, REFERENCES, etc..

Examples of Senior Theses

Those who are contemplating undertaking Senior Thesis work may find it useful to examine work which is considered to have been done at this level both at St. Lawrence and at other schools. Those done at St. Lawrence are held in annual compendiums in the Geology Office. While you are encouraged to look at them they must not ever leave the office. It is likely that your advisor has a pdf of recent theses she or he has supervised and may be able to forward a digital copy to you.
RESPONSIBILITIES

It is the student's responsibility to meet all deadlines established for thesis production.

The student, his/her advisor, and other faculty readers are jointly responsible for seeing that the thesis follows the form of scholarly style and usage described herein. In fulfillment of this responsibility each member of the advisory committee or the sole advisor should approve, by initialing and dating, the preliminary draft. This means that before final typing of a thesis is undertaken, members of the advisory committee must have made their criticisms and must have seen and approved the changes the student has made to remove the criticisms. Initialed approval is a tentative acceptance of content, organization, form of expression, style and usage in the thesis and is a commitment that no major changes of content, organization, or style of the thesis will be required after the final copy has been prepared. The members of the advisory committee or the advisor subsequently must indicate their approval of the final copies by signing the approval page (see Appendix II).

Student and faculty share responsibility for expediting review of thesis drafts. While it is the student's responsibility to make sure the drafts are promptly circulated to the faculty readers, it is the faculty reader's responsibility to give each thesis his prompt attention. Turn-around time for a thesis draft, delivered on time, should generally not be more than 72 hours. No guarantees can be given for drafts submitted late or after the end of the semester.

FINAL WORDS

The intent of the senior honors thesis is to provide a standardized mechanism for in-depth undergraduate research and to serve as part of the requirements for the granting of honors within the major. It is a long-standing tradition that has served the department and it's students well. It also serves as excellent preparation for graduate school and almost any career pathway in the geological sciences. However, it requires a level of scholarship and a commitment of time, often two semesters or more, that not everyone is prepared for or can make. Think long and hard about whether you can realistically undertake a thesis or if you might be better served by a senior year project. Talk at length with your advisor and review the work done by your predecessors in the geology department. Begin your planning as early as possible, at least by your junior year, and talk to seniors in the department who are completing a thesis. If you do take on a thesis also consider presenting your work at a regional or national meeting. Exceptional work may even be published, with the help of your advisor, in a peer-reviewed journal.

These guidelines were compiled by J.M. Erickson, December, 1974. Revised: March, 1982; July, '85; May, '92; Sept. '93; May,'94, July, 2002. They were revised by J. Chiarenzelli Aug. ‘2013
A STUDY OF NEW YORK WEATHER

by

Irving M. Weatherman

A Bachelors Thesis
Submitted to the Faculty of the Department of Geology of St. Lawrence University in partial fulfillment of the requirements for the degree of

Bachelor of Science with Honors in Geology

Canton, New York

2002

(Note: This page is followed by an un-numbered BLANK PAGE which is COUNTED as page ii of the Preliminaries when preparing pagination for CONTENTS)
This thesis submitted by ______________________________
in partial fulfillment of the requirements for the degree of Bachelor of Science with Honors in Geology from St. Lawrence University is hereby approved by the Faculty Advisor under whom the work was done.

____________________________________________________________
Faculty Advisor

____________________________________________________________
Department Chairman

____________________________________________________________
Date

____________________________________________________________
Date