

# **GUIDELINES FOR THE PREPARATION OF THE M.S. THESIS PROPOSAL**



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Troy University  
Troy, AL 36082**

If there is a conflict between referenced style manuals and the samples presented in this document, the samples herein are the ones to take precedence. Only the Dean of the Graduate School may approve exceptions. If the Departmental guidelines are found to be in conflict with those of the Graduate School, the Graduate School Guidelines take precedence.

**Revised: November 13, 2008**

## **PREFACE**

The Department of Biological and Environmental Sciences wrote the Guidelines with three primary objectives in mind:

1. To explain policies and procedures that the student must follow to meet deadlines and requirements for the M.S. thesis proposal.
2. To distinguish the contents of the different sections of the M.S. thesis proposal and explain their contributions to the document.
3. To provide a clear and accurate format for students and their faculty advisors to follow for writing the M.S. thesis proposal.

If the Department adopts a new format of the Guidelines as the student is completing the final draft of the thesis proposal, the student will have the choice of completing his/her thesis proposal using the old format or adopting the new one. Students may review copies of previously approved proposals. However, the Department keeps a separate file of the original proposals that students may not remove or review.

## GENERAL INFORMATION

### FORMATION OF THESIS ADVISORY COMMITTEE

The thesis advisory committee shall be comprised of at least three faculty members selected by the major professor (advisor), who also serves as the thesis advisory committee chair, and the graduate student. The committee may be comprised of graduate faculty members from the Department of Biological and Environmental Sciences, Troy University graduate faculty members from another relevant department, or a distinguished scholar with pertinent expertise from outside the University.

The timeline described below provides the steps for graduating in two years or less.

### THESIS PROPOSAL TIMELINES FOR GRADUATE TEACHING ASSISTANTSHIPS AND FELLOWSHIPS

1. End of classes in first semester – draft proposal to major advisor
2. Four weeks before end of classes in the second semester – proposal to committee members
3. Two weeks before end of classes in the second semester – defend proposal and submit proposal to Department chair

Note: Students will not be allowed to register for thesis hours until the thesis proposal has been approved.

4. If the student does not meet the above timeline, the advisor and committee may propose a new timeline with deadlines during the third semester. However, the Department chair must approve the proposed timeline. Requests for new timelines will be reviewed on a case-by-case basis.

Noncompliance: For any of the above, loss of GTA/Fellowship could occur for the following semester after consultation with the Department chair.

### DURATION OF TROY UNIVERSITY FINANCIAL ASSISTANCE

If the GTA demonstrates timely thesis progress and satisfactory teaching/preparatory performance, Troy University Graduate Teaching Assistantships can be held up to 7

semesters, including summer terms. Any additional financial support will be determined on a case-by-case basis.

#### OWNERSHIP OF RESEARCH DATA AND NOTEBOOK

All data collected for the graduate degree in the Department of Biological and Environmental Sciences are the property of Troy University and are administered by the advisor. All students must maintain a research notebook and other records of their research data (autoradiographs, computer files, computer printouts, digital photographs, films, programs, specimens, videotapes, etc.). The notebook serves as a research diary for recording the raw data as collected. The notebook and any other records of the research should always be accessible to the advisor. The student will normally be allowed to make copies of notebooks and other data, but the original data, records, and specimens must remain with the advisor. All original data and specimens must be returned to the advisor before the student graduates. Data collected may not be presented at any meeting, posted on the internet, or published in any form before or after graduation without the prior written consent of the advisor.

#### PUBLICATION OF THESES

While having a master's degree strengthens a person's credentials, publishing the research advances professional status. A thesis is considered to be "unpublished" until it appears as a paper in a refereed journal or in a book. Graduate students are strongly encouraged to publish as often as their data justify. The major advisor may require a finished manuscript to be submitted before signing a student's thesis. Graduate students will find it easier to write manuscripts from their thesis research while they are still in graduate school rather than after graduation.

#### ORDER OF AUTHORSHIP FOR PUBLISHED PAPERS

The student and advisor have traditionally co-authored publications resulting from thesis research. Authorship order depends upon several factors. The advisor has usually developed the research idea; provided instruction regarding techniques, methodologies, and approaches; helped with the completion of the project; and overseen the writing of

the thesis. In addition, the advisor usually bears scientific and financial responsibility to the funding agencies for successfully completing the projects. An exception to this is a student who has been paid from a grant or contract; in that situation, an additional contract may be developed that binds the student to financial responsibility pending a finished product. The student has contributed to the success of the project and done most of the work. There are other complicating considerations. A large project involves many students contributing to different aspects of the project over a period of time. Under these circumstances, the order of authorship becomes more difficult to assign. In these and all cases, the advisor and student should discuss the authorship order at the beginning of the project. The major advisor will make the final decision.

#### COLLECTING PERMITS AND LICENSES

Research requiring collection of organisms, or environmental sampling, needs to be designed to have minimal impact on natural resources. Students must obtain appropriate Federal, State, or local (including University) permits and licenses for fieldwork and collections prior to beginning their research. Additionally, permission should be obtained from landowners before collection on private property takes place. All required Troy University forms should be attached to the thesis proposal.

Many Federal, State, and local agencies require licensing for: alcohol, animal care, drugs, endangered species, and radioactive isotopes. In addition, Troy University requires that the Institutional Review Board approve all work involving human subjects. Also, all research not involving humans must still be approved by the Animal Research Review Board or exempted using the Non-Human Subjects Approval Form. For one or both of the aforementioned forms, see Appendix III. This should be done before beginning data collection, and these documents should be attached to the thesis proposal. Failure to comply with these regulations can result in the loss of a license for the Department or the University. Moreover, the violator may be subject to Federal, State, or local penalties. Students should check with their advisor to determine whether they need to be licensed to perform their research.

## PROFESSIONAL CONDUCT AND PLAGIARISM

Students and faculty are expected to conform to the codes of ethics and conduct established by the University (see Oracle, Faculty Handbook, and Graduate Catalog) and according to professional standards. For this reason, students may not engage in any activity that does not conform to professional standards without the appropriate certification and approval of their advisor or the Department Chair.

Plagiarism is a serious cheating offense and can result in being dropped from the program or dismissed from the University for all students found guilty of this offense. It is strictly defined as use of three or more words directly from the source, except in the case of formal names that are inseparable. It is also defined as using other people's work without proper reference citation. Many students directly take passages and words from printed articles, or increasingly from the internet, and represent this as their own writing. If you have not cited the source or authority, then you have plagiarized. It is considered a very serious ethical violation. In order to avoid the penalty that comes with plagiarism, you must rewrite the information in your own words or use quotes and properly identify the source.

Serious breaches of codes of conduct, such as data fabrication, plagiarism, unprofessional conduct, or a disregard for the need to obtain the appropriate licenses, may result in disciplinary action. When students have questions about codes of ethics, professional conduct, or the proper citation of material, they should ask their advisors.

## **THE THESIS PROPOSAL**

The proposal is a document that formally presents the student's written description of the projected M.S. thesis research. The proposal should be submitted to, and approved by, the thesis advisory committee before the end of the second semester that a student is registered in the program. In broad terms, the proposal represents the student's commitment to the thesis advisory committee to complete the proposed project on time and on budget. The thesis advisory committee, in turn, reviews the proposal to determine that the scope of the project is feasible and to make certain that the student has access to the resources needed to complete the project. The committee's approval

endorses the research plan and indicates the committee supports initiating or continuing the thesis project. The thesis proposal timeline is as follows:

1. End of classes in first semester – draft proposal to major advisor
2. Four weeks before end of classes in second semester – proposal to committee
3. Two weeks before end of classes in second semester – defend proposal and submit proposal to Department chair

Note: Students will not be allowed to register for thesis hours until the thesis proposal has been approved.

4. If the student does not meet the above timeline, the advisor and committee may propose a new timeline with deadlines during the third semester. However, the Department chair must approve the proposed timeline. Requests for new timelines will be reviewed on a case-by-case basis.

Noncompliance: For any of the above, loss of GTA/Fellowship could occur for the following semester after consultation with the Department chair.

#### DIFFERENCES BETWEEN THE PROPOSAL AND THE THESIS

1. PROPOSED VS COMPLETED RESEARCH. In the proposal, students describe what they intend to do and why it is important/significant to do it. On the other hand, the thesis represents the completed research document. It tells the reader what the students have done and what it means.

2. LENGTH. The proposal is generally a much shorter document than the thesis because it usually contains little if any data. The proposal is 5-15 pages in length, excluding the cover page, tables, figures and appendices. By comparison, the thesis contains substantial amounts of data and the interpretation of the data. For these reasons, it is a larger document than the proposal.

3. FORMAT. The thesis is a permanent document of record that will be filed in the Troy University Library and also with abstracting services around the country. As a result, it must meet stringent format requirements set by the Department, Graduate School, and Library. The format for the thesis proposal, which is an internal document is outlined below with specific details given in Appendix I.

## ORGANIZATION OF THE PROPOSAL

For organizational reasons, the proposal is divided into sections to account for all the equipment, supplies, experimental design, funds, skills, and time needed for successfully conducting the research project. The separate sections of the proposal are described below:

### TITLE PAGE (See sample in Appendix II)

The title page must contain the following information: 1) title of proposal, 2) student's name and signature, 3) name of Department and University, 4) date, 5) projected date of graduation, and 6) names of committee members with lines for their signatures.

### INTRODUCTION/BACKGROUND

The Introduction/Background presents and justifies the research subject under consideration. By discussing pertinent prior research (background and/or literature review) on the subject, it creates a context for the proposed research project.

### GOALS/OBJECTIVES (AND HYPOTHESES WHERE APPROPRIATE)

The Goals and Objectives divide the larger central issue posed in the Introduction/Background into small specific testable units and explain the expected outcomes from each objective (if there is more than one). Where appropriate, the Goals/Objectives ends with a concise statement of the central issue (hypothesis) of the research project.

### METHODS

Research requires the use of supplies and equipment in order to collect and record data. The student should list the specific equipment and/or resources that are needed for completing the research project. If essential equipment and/or resources are not available, then the student must modify the research project to make use of equipment and/or resources that are available. The thesis advisory committee will want assurances from the student and thesis advisor that the equipment and resources needed to perform the

proposed project are readily available. Supplies, mileage, and other expendables should be included in the budget. All chemicals, agents, and organisms used in the project must comply with state and federal safety regulations for storage, use, and disposal. All collecting activities must comply with state and federal laws, if applicable.

The experimental design frames the question into a specific, testable prediction. The student and advisor must choose statistical tests, as appropriate, for the questions being posed during the research project. The student should work closely with the advisor and thesis advisory committee on the experimental design because it will influence the scope of the project and the number of observations that the student needs to make to be confident about the quality of the data.

#### PRELIMINARY DATA (optional)

Often it is necessary to collect preliminary data to test the methods and feasibility of a project. In addition, preliminary data provide a guide for completing other portions of the proposal, such as the Timeline, Budget, and Methods.

#### REFERENCES

The specific format of the references should follow a single peer reviewed journal format (Instructions to Authors) to which the future manuscript of the thesis may be submitted. However, it must include names of all authors, full titles, and beginning and ending pages of papers. In the event that formats for the journal and these proposal Guidelines conflict, the student should follow the Guidelines. Only references used in the proposal narrative should be cited.

#### TIMELINE AND MONTHLY WORKLOAD

The timeline is a time budget in which the student plans how to use time to complete the research. It is a planning tool that translates the idea of the proposal into a thesis, lists the separate tasks in the research project, and provides a means to measure predicted progress against actual progress. The student and thesis advisor should critically review time estimates for completing the thesis research.

The workload lists the monthly time commitments. It is designed to make sure that the student is devoting sufficient time to the thesis research around other responsibilities, such as teaching or coursework. An example of the Timeline and Monthly Workload is provided below.

**EXAMPLE:**

**TIMELINE**

August 2008	Begin collecting plants and literature search.
September 2008	Committee Meeting to approve thesis proposal and EAM/BIO courses.
September 2008	Write Alabama Wildflower Floristic Grant Proposal.
January 2009	Search Troy University Herbarium for specimens.
February 2009	Have plants identified and labels completed for 2008 collections.
April 2009	ASB meeting
June 2009	Committee Meeting to review progress.
August 2009	Write Alabama Wildflower Floristic Grant Proposal.
October 2009	Search Herbaria at Troy University, Auburn University and The University of Alabama.
December 2009	Begin writing thesis.
January 2010	Submit ASB abstract; turn in all plant collections with typed labels.
March 2010	Submit first draft of thesis to Major Professor.
April 2010	Presentation at ASB meeting.
May 2010	Submit thesis to committee.
July 2010	Thesis defense and begin preparation of manuscript for publication.
August 2010	Submit thesis to graduate school and GRADUATE.

**MONTHLY WORKLOAD**

- 8 days in the field per month (March-September)
- 2 days in the field per month (October-February)
- Plant identification; 30-40 hours per month
- Typing herbarium labels; 5 hours per month
- Library work; as needed
- Course work
- Graduate Assistantship: assist in prepping and teaching labs, herbarium.

## BUDGET

Most research cannot be conducted without financial support. An accurate estimate of the costs involved with the research project is essential. In developing a Budget, the student should list all costs, such as travel, supplies, equipment, computer software, postage, etc. The research advisor's critical review and approval of the Budget is essential. In the absence of a grant or contract, the University may be unable to provide financial support for the thesis research; and the student will be unable to complete the proposed thesis research. An example of a Budget is provided on the next page.

## **UPON COMPLETION OF THE PROPOSAL**

### **ADVISOR'S APPROVAL AND SUBMISSION TO THE THESIS ADVISORY COMMITTEE**

Upon receiving the advisor's preliminary approval, the student submits the proposal to each member of the thesis advisory committee two weeks prior to the proposal meeting. The proposal should be free from spelling, grammatical, and format errors before submission to the committee.

### **PROPOSAL MEETING**

At the proposal meeting, the student is expected to present an overview of the thesis research. During the proposal meeting, the thesis advisory committee will evaluate the proposal on the following criteria: scientific merit, feasibility, timeline, budget and proposal construction. The student should expect a scientific dialogue with comments from the committee. In the proposal meeting, the student also commits to complete the stated research. When approved, the proposal will serve as the basis for the thesis research. Oftentimes, the committee will tentatively approve the proposal pending completion of revisions.

**EXAMPLE:**

**BUDGET**

**1. Personal**

Graduate Student Stipend	12,500
Summer field assistant	1,500

**2. Travel**

Mileage	2,000
Travel for Presentations	500

**3. Supplies**

Sample bottles	200
Waders	200
Reagents	300
Field notebook	15
Equipment	200

**4. Publication**

Publication charges	800
Thesis binding	200

**Total** 18,415.00

**Overhead (31%)** 5,708.65

**Grand Total** **\$24,123.65**

## APPENDIX I

### FORMAT REQUIREMENTS FOR THESIS PROPOSALS

The thesis proposal must be consistent with Troy University Graduate School Thesis Guidelines. The most pertinent items are outlined below.

#### PAPER SIZE AND ORIENTATION

- Paper must be positioned as “portrait” (long axis oriented vertically) throughout, with rare exceptions.
- Exceptions: Landscape (long axis oriented horizontally) may only be used when extra space is needed for complex and detailed tables or maps.

#### PAPER QUALITY

Proposal

- Any high quality paper

#### MARGINS

- For proposal, left—1”; top—1”; bottom—1”; right—1”

#### FONTS AND POINTS

- 12-point font (Times New Roman). Different points should not be used for headings, subheadings, or any other section of the thesis proposal.
- Exceptions: You may use a smaller point type for superscripts, subscripts, and footnotes. You may also use larger or smaller point type in the body of a figure.

#### WORD PROCESSING

- The thesis proposal must be free from mistakes.

#### TYPEWRITERS

- The typewriter may only be used for numbering or labeling inserts that cannot be readily handled by a word processor or printer because of size, shape, thickness, or other special characteristics.

#### PRINTERS

- Laser or inkjet printers are acceptable; do not use dot matrix or other impact printers.

#### COLUMNS

- Use single columns for the narrative sections throughout the thesis proposal.

#### SPACING

- Single spacing is used for: block quotes, footnotes, headings, subheadings, tables, and table and figure captions.

- Double spacing is used for: body [Introduction/Background, Goals/Objectives (and hypotheses), Methods, Preliminary Data, References, Timeline and Monthly Workload, Budget, Appendices].

#### JUSTIFICATION

- Consistent justification should be used throughout.

#### PAGINATION

- Every page is counted, except the title/signature page.
- The body of the thesis proposal [Introduction/Background, Goals/Objectives (and hypotheses), Methods, Preliminary Data, References, Timeline and Monthly Workload, Budget, Appendices] is numbered consecutively at the center of the bottom of the page.

#### PRINTING ON ONE SIDE OF THE PAPER

The paper is printed on one side (front) only. The other (obverse) side is left blank.

