**APPLICATION FOR BIO 7990**

**GRADUATE THESIS RESEARCH**

**Course:** BIO 7990 (3 cr) Graduate Thesis Research

**Student Information**

 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_SID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Major: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Concentration: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Credits Completed: \_\_\_\_\_\_ GPA: \_\_\_\_\_\_\_

**Faculty Supervisor:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Committee Members:** (2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title of Proposed Study:**

**Semester and Year of Study:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Continuing Project:** yes or no

**Brief Summary of Proposal/Progress:**

**Signatures**

**Student:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_

**Faculty Supervisor:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_

**Committee:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_

**Graduate Program Director/Chairperson:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_

**Proposal Guidelines:**

BIO 7990 Graduate Thesis Research provides an opportunity for research oriented graduate students to design and execute an in-depth research project under the supervision of a faculty mentor and committee. Students interested in conducting independent research should contact a faculty supervisor well in advance of the intended semester in which the project is to be conducted. Students are encouraged to register for Graduate Independent Reading (BIO 7010/7020) for an adequate literature review prior to taking thesis credits. In consultation with the faculty supervisor and two additional committee members, the student will define the project objectives, do a literature search to develop the justification for the proposed research, develop detailed methods for the proposed work, and prepare a project proposal according to the detailed guidelines below. Any proposal for thesis research is to represent the scholarly work of an individual student and must strictly adhere to the University policy on academic integrity regarding plagiarism and appropriate acknowledgement of sources. Faculty guidance is not to include the writing of any part of the proposal, and supervisors should take special care that students do not paraphrase any source without attribution in the preparation of their proposals.

The purpose of the proposal is to develop a novel, independent, publishable research project. Furthermore, the Thesis Committee is charged with determining if: 1) the proposed project will provide significant impact to the scientific community; 2) the proposed project will provide a worthwhile experience in independent scholarship for the student and lead to a potential peer-reviewed publication; 3) the student is well-prepared and motivated to conduct the proposed project; and 4) the project is feasible in a reasonable time-frame and at a reasonable cost.

The thesis research proposal should accomplish these aims within the following components and format. DO use section titles (Introduction, Background, Research Plan and Literature Cited) as headings in your proposal.

Introduction

Introduce the scientific context for the proposal, explain the motivation for your proposal, and provide a clear statement of objectives and hypotheses. Your purpose is to demonstrate an understanding of the conceptual framework for the questions you propose to investigate, indicate some familiarity with the relevant literature, and make the case that your proposed investigation is scientifically worthwhile.

Background

Provide a reasonably detailed review of the current literature on your topic (or, alternatively, questions and sub-questions) that will provide the basis for your research project. Include what is currently known about your topic, what is lacking in the field you wish to study and how your project will advance the field’s knowledge of the topic.

Research Plan

Provide a detailed section explaining how each hypothesis will be addressed. Provide information of your study organism, field location and experimental design. Include any experimental protocols. Provide information regarding the type of data to be collected and how those data will be analyzed.

Also include a detailed timeline indicating when you expect to finish various aspects of the research. Please include the semesters you will register for thesis credits.

Literature Cited

List all of the information sources (and only those sources) that you cited in the body of your proposal. Citations should be formatted in a manner acceptable to the discipline or in the APA (American Psychological Association) style. For example:

Andrews, R. H. and Bull, C. M. 1982. Mating behavior and reproductive isolation of three species of reptile ticks. Animal Behaviour. 30:514-524.

Citation and listing of a publication indicates that you have read the publication yourself. Second-hand citation should be avoided, and clearly acknowledged when necessary (as when the original is unavailable or in a language you don't read, for example:

Aeschlimann, A. 1958. Development embryonnaire d'Ornithodoros moubata et transmission transovarriene de Borrelia duttoni. Acta Tropica 15: 15-64, cited in Sonenshine, D., 1991. Biology of Ticks. Oxford University Press.).

Heavy reliance on web sources (other than peer-reviewed publications available online, in which case providing the doi, digital object identifier, is acceptable) is discouraged. Where necessary, citation of web sources should be as complete as possible, should indicate the authority for the information on the site, and should include the date when the site was last updated (if available) and the date when it was accessed by the student.

**Progress Report Guidelines:**

Include these titled sections:

Introduction

Provide a brief introduction on the scientific scope of the project. Indicate the initial rationale for the project and the hypotheses that were tested. Indicate any change from the initial proposal and the direction the research will take to finish the thesis research.

Progress to Date

Provide a detailed account of the completed research. Include the hypotheses tested and appropriate data that addressed those hypotheses. Indicate how the completed progress has influenced the future direction of the thesis research.

Timeline for Completion

Provide a detailed timeline indicating when you expect to finish the remaining aspects of the research. Include when the thesis document is expected to be completed and a tentative date for the oral presentation and defense of the thesis.