

Graduate Thesis Proposal Guidelines

CSUB Department of Biology

Approved 3/31/2016

All proposals should be prepared following the formatting guidelines contained within the “Writing Standards in Biology” document available from the Department of Biology webpage (<http://www.csub.edu/biology/files/How%20to%20Write%2014.pdf>).

The maximum length of a thesis proposal is 10 single-spaced or 20 double-spaced pages, not including figures, tables, or the literature cited sections of the proposal. There is no minimum limit, but proposals must be constructed to include all of the sections and fully address all of the requirements listed below.

Graduate students are strongly encouraged to work closely with their advisor to develop their research proposal, to ensure that all relevant information is included, and to guarantee that the proposal meets the specific permitting requirements for the relevant sub-discipline (i.e. IRB, IACUC, USDA, etc.). However, the proposal must be written solely by the student and reflect their understanding of the topic, literature review, writing, words, and thoughts.

The following proposal sections are required for all thesis proposals and are generally based on the requirements by the National Science Foundation for Graduate Research Fellowship proposals.

Each thesis proposal should contain the following:

Title

Student name

Abstract

Background (a review of the relevant literature related to the proposed research and an introduction to the specific study system)

Proposed Research (including hypothesis/hypotheses and predictions and justifications for each; this section may include preliminary data)

Proposed Research Methods (including both data collection and analyses)

Proposed Thesis Completion Timeline

Resources (a statement describing the resources required to complete the proposed research and the plan to cover potential research costs)

Statement of Originality (the proposal must include a statement that the research idea and proposal are the student’s own original work, ideas, and writing)

Acknowledgments (individuals other than the student who contributed to the proposal development should be named and acknowledged)

Literature Cited

Tables and Figures (tables and figures may be included to illustrate important ideas or to present preliminary data that illustrate research feasibility; all tables and figures should be included at the end of the document, with each table or figure on a separate page and including a clear table title or figure caption).

Thesis Proposal Evaluation:

Proposals must be distributed to graduate committee members at least TWO WEEKS prior to the scheduled proposal defense. The following elements will be considered by the thesis committee when reviewing a thesis proposal and should be clearly addressed within the text of the proposal. Proposals will be evaluated using the following criteria:

Criteria met?	Yes/No?
Clarity:	
• Is the proposal clearly written and well drafted?	_____
• Has the student demonstrated breadth of knowledge in their chosen area of specialty?	_____
• Is the proposal formatted in a manner that is consistent with the provided guidelines and scientific standards?	_____
Best practices:	
• Have all of the requirements been met for the research to be conducted (i.e. permits?)	_____
• Does the proposed research meet the scientific standards for the field (controls, sample sizes, methods, etc.)?	_____
Research methods:	
• Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale?	_____
• Have principles of the scientific method been incorporated into the research plan?	_____
• Does the plan incorporate a mechanism to assess results?	_____
Scientific significance:	
• Does the proposed research have the potential to advance knowledge and understanding within the field?	_____
• Is the hypothesis formulated properly and does it represent a broad and testable biological pattern or observation?	_____
Resources:	
• Is the research feasible?	_____
• Are there adequate resources available to carry out the proposed activities?	_____
• Has the student demonstrated the ability to complete the required research methods, protocols, writing, analysis, etc.?	_____

Note, all of the above questions may be answered with a “yes” or “no.” Failure to successfully pass with a “yes” answer from a majority of committee members for one or more of questions listed above (i.e., a single “no” answer) is enough to result in a proposal failing to be approved by the thesis committee.

If the proposal is not approved by their thesis committee, students are encouraged to work with their thesis advisor to revise their proposal and to address any weaknesses or other issues raised by the thesis committee members. With permission of the committee, a student may then request that another defense be scheduled. A proposal may not be “re-defended” within four weeks of any past defense to allow time for a student to reflect on faculty feedback and to make needed alterations to their proposal. A proposal may be defended multiple times within a term if a committee allows it and it does not violate the four-week limit and two week required distribution time before any schedule meeting described above.

If a student has presented a proposal three times and still has not been able to pass his/her thesis proposal defense, the Department of Biology strongly recommends that the student considers changing to the non-thesis track within the MS Biology program and working with the Graduate Coordinator to develop a plan of completion. A student who does not pass the thesis defense on the third try will not be able to graduate from the MS Biology program in the thesis-track.

Thesis Proposal Completion and Advancement to Candidacy:

Students must “pass” a defense of their thesis proposal prior to initiating thesis research, advancing to candidacy, or enrolling in any BIOL 6911 or 6921 courses.

At the time of application for advancement to candidacy, students must obtain the signature of their committee chair verifying, on behalf of the thesis committee, that the student has successfully defended their thesis proposal. The approved version of the thesis proposal must also be submitted along with the student’s application for advancement to candidacy.

All forms are contained within the Biology Graduate Guide.