

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_14.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 690/6911 or 691/6921 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.

Relevant forms have been attached to this document. All forms are contained within the Biology Graduate Guide.

CSUB Biology Program Thesis Committee Membership Record

(Graduate student Name) (Graduate student CSUB ID #) (Date)

(Proposed Thesis Topic)

I agree to serve as a member of the thesis committee for the above mentioned graduate student and thesis topic.

(Committee member name) (Committee member signature) (Date)

(Committee member name) (Committee member signature) (Date)

I agree to serve as the chair of the thesis committee for the above mentioned graduate student and I approve the two faculty members who have signed above as committee members.

(Committee Chair name) (Committee chair signature) (Date)

The Graduate Coordinator approves the thesis committee for the above mentioned graduate student.

(Graduate Coordinator name) (Graduate Coordinator signature) (Date)

When completed, this form should be returned to the Department of Biology administrative assistant, and placed in the Biology Program files, in the student's folder. Copies should be sent to the student, other committee members and the former advisor if applicable. If there are changes in committee composition, the advisor should complete a new form.

**CONCENTRATION OUTLINE
DEPARTMENT OF BIOLOGY
MS Degree (Thesis Option)
Catalog (2015–2016)**

Name: _____
Address: _____
ID#: _____

<u>Coursework</u>	<u>Quarters (2013-2016)</u>	<u>Semesters (2016-2017)</u>
	<u>Date</u>	<u>Date</u>
	<u>Units</u>	<u>Units</u>

Students must take 3 course offerings of BIOL 505 and/or BIOL 5010 (additional course offerings may count as elective courses):

BIOL 505: (3 quarter units each) a) _____ b) _____ c) _____	= BIOL 5010 (2 semester units each) _____ _____ _____
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The following courses are required:

BIOL 510 (4 quarter units) _____	= BIOL 5100 (4 semester units) _____
BIOL 605 (3 quarter units) _____	= BIOL 6010 (2 semester units) _____
BIOL 690 (8 quarter units) _____	= BIOL 6911 (5 semester units) _____
BIOL 691 (1 quarter unit) _____	= BIOL 6921 (1 semester unit) _____

ELECTIVES (20 quarter units or 12 semester units required; Conversion is 3 semester units to 5 quarter units; No more than three courses may be at the 400-(quarters) or 4000-(semesters) level):

Course:

_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____
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UNIT TOTALS: (must be ≥45) _____ (must be ≥30) _____

Additional requirements:

GWAR satisfied _____

Overall GPA >3.0 with a C or higher in ALL graded courses that apply toward degree _____

APPROVAL

_____ Date	_____ Advisor	_____ Date	_____ Department Chair
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APPLICATION FOR ADVANCEMENT TO CANDIDACY (THESIS)

PART I

1. STUDENT NAME: _____

2. ID #: _____

PART II

As Committee Chair for the above named student, I recommend his/her advancement to candidacy. The student has demonstrated a satisfactory level of scholastic competence by meeting the criteria established for this program of study.

The student has completed _____ units with a _____ grade point average.

A concentration outline has been completed and approved. A copy is attached.

The following members comprise the student's thesis graduate committee:

Name _____	Position _____
Name _____	Position _____
Name _____	Position _____

The program requires that the student complete a thesis project proposal and successfully defend it with their committee before advancement to candidacy can occur. The student completed this requirement on _____(date).

A copy of the approved thesis proposal is attached. The thesis/project is tentatively entitled:

SIGNATURES

STUDENT _____ Date _____

COMMITTEE CHAIR _____ Date _____

GRADUATE COORDINATOR _____ Date _____

PROCEDURES

A graduate student who has been granted classified standing is normally advanced to candidacy by his/her Committee Chair. The Committee Chair provides his/her signature as an affirmative recommendation of eligibility to continue with the program, attesting to the student's demonstration of a satisfactory level of scholastic competence, and the successful completion of a thesis proposal defense with the student's full graduate committee.

Along with the Committee Chair recommendation, students must have already prepared and submitted an approved Committee Membership & Concentration Outline form. The student and Committee Chair must complete and submit this form along with an approved study plan to the Office of Admissions & Records to record the information requested for advancement to candidacy.