

Department of Biological Sciences
California State University, Long Beach
<a href="https://www.csulb.edu/biology">www.csulb.edu/biology</a>

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**NOTICE:** Updates to this document and critical information will be sent to you through the Biological Sciences Graduate Programs Canvas site.

You must turn on your email notifications in Canvas and check your CSULB email.

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# **Introduction and Expectations**

## Welcome to Graduate School in the Biological Sciences Department at CSULB!

This handbook was developed to guide graduate students and faculty in some of the processes associated with completing an M.S. degree in this department. This document is a *supplement* to the University Regulations Governing the Master's Degree listed in the current CSULB Catalog under Graduate Degree Information and the departmental requirements outlined in the Biological Sciences section.

This handbook is not an official document. Always follow the current CSULB Catalog; if you find any discrepancies in requirements information, contact the Department Graduate Advisor and Graduate Services Coordinator for clarification.

## Knowledge and Skill Proficiency Expectations of our M.S. Degree Graduate Students

We expect that graduate students:

1.

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## Personnel



**Interim Dean of Graduate Students** 

Dr. Dina Perrone

Promotes graduate student success through recruitment, collaboration with admissions, policy development, and program partnerships, while overseeing surveys, communication, and the Graduate Center.



Interim Vice Provost of Academic Programs

Dr. Pei-Fang Hung

Oversees all matters of academic program planning, educational policy, curriculum review, and institutional/programmatic assessment.



**Dean of Graduate Students – College of Natural Sciences and Mathematics**Dr. Babette Benken

Provides input to faculty and students concerning the degree program and University requirements.



Graduate Services Coordinator – Department of Biological Sciences
Jenn Carrillo

HSCI-108B, 562.985.7928, Jennifer.Carrillo@csulb.edu

Oversees graduate application process; maintains graduate files; tracks the adherence of programs and student progress to Department and University requirements; and serves as a resource person.



**Graduate Advisor – Department of Biological Sciences** 

Dr. Kevin Sinchak

HSCI-140, 562.985.8649, Kevin.Sinchak@csulb.edu

Oversees the acceptance, proposal establishment, and completion processes; resolves problems between students and faculty, serves as final departmental quality control on the thesis.



Chairperson – Department of Biological Sciences

Dr. Jesse Dillon

HSCI-104, 562.985.4806, Jesse.Dillon@csulb.edu

Determines TA and GA assignments, resolves problems between students and faculty, final signature on the thesis.

of Thesis Chair/Advisor may require you to receive an extension for the Thesis Proposal submission and ultimately Advancement to Candidacy.

\*697 – Directed Research (from the course catalog): Research on a specific topic approved and directed by a faculty member in the Biological Sciences. Written report required. NOTE: the research must be different from the research for your Master's thesis project.

#### Role of the Thesis Advisor

The primary role of the Thesis Advisor is to guide and mentor a graduate student working in their laboratory throughout the thesis research and academic program, ensuring the student is making continued satisfactory progress towards completion of the degree.

The Thesis Advisor is responsible for:

- 1. providing the Graduate Services Coordinator formal notification of their willingness to advise a particular applicant to the graduate program. This acknowledgement must be provided in writing prior to the review of the student's application by the Graduate Studies Committee.
- 2. helping graduate students identify an appropriate research topic, develop a thesis proposal, form a Thesis Committee, and successfully defend the proposal.
  - a. Development and writing of the thesis proposal is associated with the BIOL 696A course. The Thesis Advisor is required to edit and approve the proposal that is being written during the course. The proposal written for the course is meant to be the proposal that is associated with the student's Advancement to Candidacy.
- 3. providing laboratory space, equipment and supplies, and mentoring necessary for successful completion of the research project.
- 4. advising graduate students about degree program requirements in consultation with the Graduate Services Coordinator.
- 5. helping graduate students find financial support through grant proposals, scholarships, and fellowships.
- 6. ensuring that the written thesis is sufficiently edited prior to timely distribution to the committee and Graduate Advisor.
- 7. ensuring that the graduate student is adequately prepared for the public thesis defense.
- 8. aiding the graduate student with publishing their thesis work and preparing the graduate student to present oral and/or poster presentations at scientific meetings.
- 9. ensuring that the graduate student and resulting thesis meet Department and University standards for knowledge in the field and research quality.

A Thesis Advisor is allowed to resign from a graduate student's committee if they feel that the student is:

- not making satisfactory progress towards their degree.
- not heeding the advice of the Thesis Advisor.
- failing to communicate with the graduate advisor for over one semester.

If students are not making progress and feel as though they are not receiving sufficient advising, a meeting will be organized by the Graduate Advisor with the Thesis Committee and a member of the Graduate Studies Committee. The committee will provide recommendations to the student and the Thesis Committee on how to

## **Establishing a Program of Study**

You and your Thesis Chair should complete the Program of Study/"Graduate Program for the Master of Science" DocuSign form available on Canvas with a tentative list of courses; these courses will be discussed for approval at the first Thesis Committee meeting. Only one 300-level class is permitted on the M.S. in Biology Program of Study, and two specific 300-level courses may be included on the M.S. in Microbiology Program of Study. Refer to the University Catalog for other university and departmental restrictions.

## **Thesis Proposal Meeting**

Notify the Thesis Committee of the proposed meeting date and provide all members of the Thesis Committee with a copy of your Thesis Proposal and a list of suggested courses for the program at least one week prior to the meeting.

Before Finals week of your second semester you will work with your committee members to find a time to meet. You may request a meeting room from the Graduate Services Coordinator. During the meeting you will give a 20- to 30-minute presentation of your proposed research to the Thesis Committee, followed by a discussion of your proposal. Towards the end of the meeting, you will leave the room while the committee discusses the proposal, and decides whether it is acceptable.

Following the decision on the acceptability of your proposal, you will be provided requirements for the final draft of the proposal. You and your committee will also determine the class requirements for your Program of Study for the graduate program during this meeting. Plan at least an hour for the committee meeting. Ask your committee members to electronically sign the final Program of Study form and the Thesis Proposal Cover Sheet; both are DocuSign forms which are available in Canvas. If revisions are required, committee members should approve the changes before signing these forms. Send the final acceptable version of your proposal to your Thesis Committee members and upload the written Thesis Proposal to Assignments in Canvas. This fulfills one of the requirements for your Advancement to Candidacy (see below).

# Second and Third Year

**Notice:** Not providing a Research Progress Update for a year indicates that you are not progressing and is a reason for termination from the MS degree program via the Administrative Academic Warning process. See the definition by the Academic Senate and in the University Catalog at following the links:

- Academic Senate Policy: Academic Warning and Disqualification
- University Catalog

## **Annual Review of Student Progress**

A Student Progress Review will be implemented when concerns about student progress are raised. Instructions for this review will be sent to you by the Graduate Studies Committee when we ask to meet with you and your committee. The goal of the formal review is to:

- 1. ensure that a student progresses smoothly on their degree work, completing it approximately two years after their official MS degree program was established (Advancement to Candidacy);
- 2. identify problems with the scope and methods of the thesis research and resolve these problems in a timely fashion with input from the whole committee;
- 3. provide the Department Chair with information used in making TA/ISA/SA assignments

## **Leaves of Absence**

In order for you to do research on your thesis, you must be registered at CSULB for each semester. If you must leave CSULB, you will need to file for an educational or medical leave of absence. Unapproved absences for one semester will result in the invalidation of your formal program (refer to CSULB Catalog under University Requirements). You must then reapply to the University as well as the MS program in Biology/Microbiology and find a faculty member that will agree to be your thesis chair/advisor. Although it is not strictly required, you are 1c20-6(d)2re1e3.7s(e1)3.7 (t)-29(a)10.16te3.7fin

# Writing a Thesis Proposal

There are no universal rules for writing a thesis proposal. The purpose here is to give you some guidelines to follow and to let you know what is expected for your written thesis proposal. The outline below is a very common and logical layout that should be used when organizing your proposal. However, discuss the format of the thesis proposal with your advisor, because they may have specific reasons for you to alter this general format. The GSC highly recommends that you look at past proposals in your field that are considered high quality examples of how a proposal should be formatted and written (you can also learn from reviewing the bad ones for what not to do).

The quality of your written thesis proposal must satisfy your committee members **and** the Graduate Advisor. The Graduate Advisor will receive the final edited version of your proposal and will read the document for approval. It is possible that the Graduate Advisor will ask you for additional revisions even after your committee approves.

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## Figures and Figure Legends

Figures should be formatted like a manuscript. The axes should be properly labeled with complete legends that explain the figure. Define the acronyms and statistical icons used in the legend. Find journal articles that are in your field to use as examples. Make sure your figures look professional.

## **Budget**

The budget is not meant to be an in-depth analysis of costs. Rather, it is meant to provide an approximation of the total costs of do(at)-3 (( as)-o y)6.3 (Tc 0.003 Tw 0.3049ET/Ar( in)2an)2[-3 (ET/Ar( 0.6 (s))7.9 (h)7.92 y)6.3 (T (g)2.W.8 (s)9 ET/Ar( 0.5722c)-1. (fig f( a)-3.3 (n)-0.495652.3 (al.)]TJ0 Tc 0 Tw 16.70780 Td( )TjEMC /H/MCI1 0 BDC 10 g/TT1 1 Tf0.002 Tc -3890

# **Public Thesis Defense Information**

Your Thesis Advisor should see a first draft of your written thesis approximately *two months* prior to the Public Defense to allow time for revisions. To prepare for the public defense and completion of your degree, be sure to complete the following:

- 1. Did you file a Request to Graduate with Enrollment Services for the appropriate semester/year?
  - Filing dates are listed in the Schedule of Classes, on <u>Student Records</u>: <u>Apply to Graduate</u>.
  - Deadlines are established each year, and the Thesis and Dissertation Office deadline has no flexibility.
- 2. Register for an academic course or GS700 during the term you graduate, including Summer if you are graduating in Summer. (Otherwise, you do not need to enroll during the Summer to maintain continuous enrollment. The same is true for Winter. Only enroll in GS700 if you will graduate in Winter term.)

3.

6. Prepare for your oral public defense: Your oral public defense should be 30-40 min long and designed to appeal to a broad audience, yet demonstrate your research acumen. Be prepared to defend your work. Faculty, students, and members of the public can ask you questions and you must be able to defend your work, or you may not pass your defense. Attend other students' Public Defenses to understand what is expected of you when you defend your research and what kinds of questions to expect.

The Thesis Defense will begin with an introduction by the thesis advisor, followed by a public presentation by the student, and will end with questions from the audience. When the public question session concludes, everyone but the student and committee will be dismissed from the room. Immediately following, the student, the thesis committee, and a representative from the Graduate Studies Committee will hold a private in-

it to your Thesis Committee Chair. If this delay means that you miss the library deadline then you will have to postpone your graduation.

After you receive an approval email from the Graduate Advisor, the Department Chair will sign your thesis signature page through DocuSign.

9. Submit the Department-approved thesis to the Thesis and Dissertation Office. You are responsible for knowing and following the University Style Guide Manual.

Tip: Use someone else's thesis (e.g., a recent graduate) as a template, and just type over it. The library has recently changed the formatting requirements, so use a thesis that conforms to the current style.

- 10. If you do not meet the deadlines for turning in your thesis to the Thesis and Dissertation Office, you need to:
  - a. change your graduation date, and
  - b. sign up for GS 700 for the next term.

The key to accomplishing these steps with minimum stress is to have a well-formed draft of your thesis approved by your thesis chair before the start of the semester in which you wish graduate.

## Pro Tips for Graduate Students Preparing for Thesis Defense and Graduation

1. All Thesis Committee members and a Graduate Studies Committee member must be present at the thesis defense. Please notify the Committee members and the Graduate Services Coordinator as soon as possible if there are last minute changes to the defense time and place.

### Chapter in an Edited Book

O'Neil, J. M., & Egan, J. (1992). Men's and women's gender role journeys: A metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107-123). New York, NY: Springer.

#### **Electronic Book**

Davis, J. (n.d.). *Familiar birdsongs of the Northwest*. Available from http://www.powells.com/cgibin/biblio?inkey=1-9780931686108-0

#### Dissertation or Thesis from a Database

Biswas, S. (2008). *Dopamine D3 receptor: A neuroprotective treatment target in Parkinson's disease*. Retrieved from ProQuest Digital Dissertations. (AAT 3295214)

### **Online Datasets**

United States Department of Housing and Urban Development. (2008). *Indiana income limits* [Data file]. Retrieved from http://www.huduser.org/Datasets/IL/IL08/in\_fy2008.pdf

Computer Software (specialized software only; do not cite standard software like Microsoft Office) Hayes, B., Tesar, B., & Zuraw, K. (2003). OTSoft: Optimality Theory Software (Version 2.1) [Software]. Available from http://www.linguistics.ucla.edu/people/hayes/otsoft/

### **In-Text Citation Format**

#### **Basic Form**

Use the author's last name and the year of publication in parentheses.

(Jones, 1998)

#### **Two Authors**

Research by Wegener and Petty (1994) supports...

(Wegener & Petty, 1994)

#### More than Two Authors

(Kernis et al., 1993)

# **Resources And Facilities**

## **Navigating Grad Studies at The Beach**

<u>Navigating Grad Studies at the Beach</u> provides a centralized online space for all grad students to learn about campus resources, student support services, and the path to graduation.

### **Graduate Center**

The <u>Graduate Center</u> is located on the second floor of the library, and provides graduate school related resources and events for prospective and current post-bac students related to graduate studies.

## **Computer Facilities**

## **Department Computing Facilities**

There is a computer with statistical software dedicated to large dataset analysis in HSCI 128 for Biology students.

### **Campus Computing Facilities**

There are two open computer labs on campus, (1) the Steve and Nina Horn Center, north campus, and (2) Spidell Technology Center on the first floor of the Main Library. Information may be found on <u>Computer Labs at the University Library</u>.

#### **CSULB Email**

Every active student is provided their own CSULB email address and BeachMail account upon matriculation. For assistance with your email account or for additional information, please visit the following web page: <a href="mailto:BeachMail">BeachMail</a> Student Email.

## **Library Facilities**

In order to assist graduate students, the library has many services that can maximize your efficiency in conducting research. Assistance with journals and other reference material is available at the Reference Desk on the first floor of the library, adjace

- 1. Use of these rooms is a privilege that can be revoked at any time.
- 2. The rooms must be kept clean.
- 3. In order to obtain keys to either of these rooms, please inquire in the department office, HSCI 104.
  - a. For MIC 101, you must submit a key request with your faculty advisor's signature.
  - b. For HSCI 135, space is very limited, and access can only be granted to a small number of students. The department maintains a waitlist of interested students. They will coordinate your request and keep track of who has a key.
  - c. You will also be given a key to the large file cabinet next to the dividing screen in MIC 101. This cabinet is for students to store their valuables/food/etc. and **must be kept locked at all times**. Only students with keys may use this cabinet. Students will be charged for replacement keys to the cabinet.
- 4. The outside door does not automatically lock. It must be kept locked at all times. The door can be propped open for office hours.
- 5. The refrigerator is for food, but must be kept clean.
- 6. If there is food waste in the room, it must be taken out and placed in the dumpster in the HSCI parking lot. This is especially true on Friday afternoons or the weekend. It is the responsibility of the graduate students to monitor and carry this out.
- 7. MIC 101 will sometimes be used for meetings, such as graduate committee meetings or other departmental committee meetings when no other room is available. Students may be asked to vacate the room for the duration of the meeting.
- 8. Students can lay claim to the small desks with drawers, but there are no keys to lock them. Try to share the room and get along.

## **Campus Student Services**

University Student Services are available in such areas as:

- Bob Murphy Access Center (BMAC) accommodations and resources for students with disabilities
- Basic Needs Program campus food pantry, emergency meal and housing assistance
- Counseling andg1 (4 (o)1.3 (o)1.2 ((s)9.6 ( P)-5.(:)]TJ0 Tl2)-1.5 ( )10.6 (th)5.3 (e)10.8 (m)84)-5.5 (ic)-2 (e)-3 (s61 1 Tf56