



Master of Science in Biology
Graduate Student Guide

Version approved November 2, 2022.

This version of the MS Biology Graduate Student Guide replaces all prior versions.

California State University, Bakersfield
Department of Biology

**CSUB Master of Science in Biology Program
Graduate Student Guide**

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1. INTRODUCTION

Greetings prospective and entering graduate students!

The Biology Graduate Faculty at California State University, Bakersfield (CSUB) developed this guide to introduce our Master of Science (M.S.) program in Biology. If you are considering CSUB as a possible choice for graduate school, this guide will give you some insight into our goals, curriculum, and strengths. If you are already admitted to our program, this guide will inform you of some of our policies, procedures, and requirements. We hope that this will be a useful tool toward determining and helping you to achieve your graduate school and professional objectives.

Paul Smith, Ph.D.
Professor and Chair

Amber N. Stokes, Ph.D.
Associate Professor and Biology Graduate Director

2. PROGRAM DESCRIPTION

Department Chair: Dr. Paul Smith

Program Director: Dr. Amber Stokes

Program Office: Science Building I, 114

Program Office Telephone: (661) 654-3089

Program Office email: vmayorga@csub.edu

Website: www.csub.edu/Biology

Graduate Faculty: I. Francis, J. Gillard, L. Hall, A. Jacobsen, K. Keller, C. Kloock, A. Lauer, R. McNeish, R.B. Pratt, A. Stokes, K. Szick

The Department of Biology offers a graduate program leading to a Master of Science in Biology degree. The Master of Science with a thesis option is intended to prepare students for professional positions in state and federal agencies, the environmental consulting industry, and for further graduate studies. The Master of Science with a non-thesis option is intended for working professionals, especially public-school teachers, and emphasizes course work. A broad range of faculty research interests, easy access to diverse biological environments, and a range of modern research facilities permit the student to select from a broad spectrum of research topics. Faculty interests include animal behavior, community ecology, evolution, comparative morphology, conservation biology, field biology, physiology, plant anatomy, plant ecophysiology, plant pathology, micro- and molecular biology, molecular evolution, and systematics.

Some of the special features of our program include:

- Close, individual guidance by highly skilled faculty
- Incorporation of science pedagogy and teaching experience
- Many graduate courses offered as late afternoon (after 3 PM) and evening course offerings, making the program accessible for those that work during the day
- Close partnerships with the private and public sector. With appropriate approval, students will be able to conduct their thesis research off campus in a partnership with a company or agency (government or non-government)
- Well-equipped, modern laboratory facilities and access to numerous field sites in the area

Laboratory and/or field research is an integral component of the program, which emphasizes a “hands-on” approach with close faculty mentoring. Research experience also enables students to hone investigative skills relating to experimental design, implementation, data analysis, and interpretation. On-campus research facilities include a ~20-acre Environmental Studies Area. In addition, faculty research labs within the department contain state-of-the-art research facilities for physiology, molecular biology, genetics, biotechnology, histology/anatomy, and morphology research. This includes several growth chambers, an ultracentrifuge, digital gel documentation systems, several -80°C freezers, several traditional thermal cyclers and a real time or quantitative PCR machine, a 2D protein analyzer, access to a shared scanning electron microscope (operated through the Department of Geology), a high-resolution computer assisted tomography system, lab and field portable gas exchange equipment, and several research-grade light microscopes equipped with high resolution cameras.

3. GRADUATE PROGRAM PERSONNEL

Position descriptions

Associate Vice President for Academic Programs — oversees all CSUB graduate programs; approves or disallows petitions and appeals to change or to grant waivers to the University and Department Graduate Degree Requirements as published in the CSUB Catalog.

Dean of School of Natural Sciences, Mathematics, and Engineering – provides input to faculty and students concerning the degree program. Reviews petitions and appeals and makes recommendations to the Associate Vice President for Academic Programs.

Department of Biology Graduate Director — reviews admissions files and notifies Admissions and Records of departmental admissions decisions, advises incoming students, advises non-thesis students, administers non-thesis exams, coordinates graduate activities of the Department of Biology, oversees program assessment, and serves as the Biology Department liaison to other graduate programs and the Graduate Student Center. The Biology Graduate Director represents the Department of Biology on the Council of Graduate Directors. The Graduate Director is nominated from among the Graduate Faculty of the Department of Biology and elected by the faculty of the Department of Biology to serve a three-year term in accordance with section 312 of the University Handbook.

Current Biology Graduate Director:

Dr. Amber N. Stokes (2020-)

Past Biology Graduate Directors:

Dr. Anna L. Jacobsen (2011-2020)

Dr. Paul T. Smith (2007-2011)

Department of Biology Graduate Committee – three- or four- person committee (including Department of Biology Graduate Director) selected by the Department of Biology to oversee the program, reviews admissions files, and review and make recommendations on all biology graduate program petitions or appeals. Members of the committee are nominated from among the Graduate Faculty of the Department of Biology elected by the faculty of the Department of Biology.

Current Biology Graduate Committee:

Dr. Lucas Hall (2022

Dr. Kane Keller (2022-)

Dr. Rae McNeish (2022-)

Dr. Amber N. Stokes (*ex officio*, Graduate Director; 2019-)

Past Biology Graduate Committee Members:

Dr. Anna L. Jacobsen (2011-2022)

Dr. R. Brandon Pratt (2014-2022)

Dr. David J. Germano (2007-2019)

Dr. Kenneth W. Gobalet (2007-2014)
Dr. Paul T. Smith (2007-2011)

Graduate Thesis Committee Chair – a tenured or tenure-track faculty member from among the Graduate Faculty of the CSUB Department of Biology who oversees the acceptance, program establishment, progress, and completion processes as the advisor to a thesis student; resolves problems between thesis students and faculty and informs thesis students of departmental regulations; serves as final departmental quality control on thesis projects.

Graduate Thesis Committee – three- to five- person committee (including Graduate Thesis Committee Chair) selected by the thesis graduate student that oversees progress and completion processes. This committee must be composed of a majority of members who are current Graduate Faculty members from within the CSUB Department of Biology. Outside members of the committee, including faculty from other departments at CSUB, emeritus faculty, other outside experts, and non-Graduate Faculty members of the CSUB Department of Biology, are permitted as long as they are an expert within the student's field of research and have attained a minimum of an Ph.D. degree within their field of biological expertise (additional information on the qualifications and invitation of external committee members is included within the catalog and in Section 8 below). Minimum required contributions from Graduate Thesis Committee members include providing feedback on the thesis proposal and attending the thesis proposal defense, being available to the student to answer questions and assist in the development of their thesis research, reading and reviewing the final thesis text, and attending the thesis defense seminar.

Graduate Non-Thesis Committee – all members of the Graduate Faculty of the Department of Biology. This committee develops questions for the non-thesis culminating exit exam and scores questions from the exit exam.

Qualifications for Graduate Faculty Membership in Biology

(policy approved November 2, 2022)

All Tenured/Tenure Track faculty are Graduate Faculty and may serve on graduate student supervisory committees (Graduate Thesis Committees) within the program and must represent a majority of members on a Graduate Thesis Committee. Only Graduate Faculty within the CSUB Department of Biology can serve as thesis advisors to students and serve in the role of Graduate Thesis Committee Chair. Graduate Faculty are responsible for teaching graduate-level courses and ensuring that these courses meet program goals and are of appropriate rigor. Graduate Faculty must have a current tenured or tenure-track faculty appointment in the CSUB Department of Biology.

Graduate Faculty in the Department of Biology (2023-2024)*:

*see the Department of Biology website for up-to-date information on current members of the department and for additional information about faculty and their research interests.

NAME	INTERESTS
Dr. Isolde Francis	Plant Pathology, Microbiology, Molecular Biology
Dr. Jeroen Gillard	Microbial Physiology and Genomics
Dr. Lucas Hall	Ecology, Conservation Biology
Dr. Anna L. Jacobsen	Plant Structure-Function
Dr. Kane Keller	Community Ecology, Evolutionary Ecology
Dr. Carl T. Kloock	Science Education, Behavioral Ecology
Dr. Antje Lauer	Microbiology, Marine Biology
Dr. Rae McNeish	Aquatic Ecosystem Ecology
Dr. R. Brandon Pratt	Plant Physiological Ecology
Dr. Paul T. Smith	Entomology, Systematics & Evolution, Genetics
Dr. Kathy Szick	Molecular and Cell Biology

4. APPLICATION PROCESS AND REQUIREMENTS

Application for the Master of Science in Biology

To apply to the Master of Science Degree in Biology program, please visit **Cal State Apply** at <https://www2.calstate.edu/apply> to initiate the application process. Up-to-date information on the application process is available through the CSUB Graduate Student Center (<http://www.csub.edu/graduatestudentcenter/>).

In addition to the online application form, prospective students must provide the following:

1. Official transcripts from all colleges and universities attended.
All applicants must send one (1) official transcript to the Office of Admissions & Records from each college/university attended. Transcripts may be sent electronically to the university. Alternatively, transcripts must be received by our admissions office in the original, sealed envelope from the issuing school to be considered official. (Exception: CSU Bakersfield graduates do not have to provide transcripts. However, if you attended other institutions since attending CSUB you must provide an official transcript from each of those institutions).

Office of Admissions and Records-Graduate Programs
California State University, Bakersfield
9001 Stockdale Highway, SA 47
Bakersfield, CA 93311-1022
Phone: (661) 654-3036
Email: postbaccadmissions@csub.edu

2. Official score reports.
 - All applicants must submit official scores for the GRE General Test.
 - GREs should be completed *by* the listed deadline for applications (see next page).
 - International students must also submit TOEFL scores.

4. Three (3) letters of recommendation from persons familiar with your performance in the classroom and potential for independent research. These letters are handled as confidential documents. Letters may be submitted either:

- a) electronically through a request generated through the **Cal State Apply** application system (preferred)
- b) electronically as a pdf letter submitted to the Biology Graduate Director (Dr. Amber Stokes, astokes2@csub.edu), or
- c) mailed to:

Dr. Amber Stokes
Biology Graduate Director
California State University, Bakersfield
9001 Stockdale Highway SCI61
Bakersfield, CA. 93311-1022

Only fully completed applications will be reviewed.

Application Deadlines

Fall Semester: Deadline of March 15

Spring Semester: Deadline of September 15

Applicants are encouraged to meet target application dates. Applications are considered on a rolling basis as they are received. Positions within the program may be limited and later applicants may be declined admission if open spots have already been filled.

This is particularly important for potential thesis-track applicants, because lab positions are limited. Students interested in pursuing the thesis-track are encouraged to contact individual faculty members to find out if they have positions available for graduate students within their lab. Students will not be accepted directly into the thesis-track without having first obtained permission to join the laboratory of their requested thesis advisor.

If you have any questions, please contact Dr. Stokes, the Biology Graduate Director (email: astokes2@csub.edu; phone: (661) 654-2886).

5. ADMISSIONS REQUIREMENTS FOR THE MASTER OF SCIENCE IN BIOLOGY

1. A bachelor's degree in biological or related sciences from an accredited 4-year college or university.
2. An undergraduate GPA of at least 3.0 in the last 90 quarter or 60 semester units of course work.
3. Graduate Records Examination (GRE) scores that are at the 50th percentile or greater for both the verbal and quantitative sections.
4. Student has taken and passed with scores of a C or better the following upper division-level courses or their equivalent:
 - BIOL 3120 Research Design and Analysis (i.e., Biostatistics)
 - BIOL 3010 General Genetics
 - BIOL 3020 General Physiology
 - BIOL 3110 General Ecology
 - BIOL 4100 Evolution
5. Formal acceptance into the program following review of all completed application materials by the Department of Biology Graduate Committee.
6. Acceptance into an academic advising relationship with a departmental graduate faculty member (thesis-option only).

6. GRADUATE STUDENT CLASSIFICATIONS

Conditionally Classified Graduate Status (GRA1)

Students who fail to meet entirely one of the criteria for admission as a Classified Graduate Student may, at the discretion of the Department of Biology Graduate Committee, be admitted as a Conditionally Classified Graduate Student. Students in either the thesis or the non-thesis track may be admitted as a Conditionally Classified student. This is the most common classification of entering students.

Conditionally classified students must enroll in 10 semester units of graduate applicable coursework during their first term and must earn scores of a B or higher in all of these course units. They must also remedy any identified course prerequisite issues within the student's first semester within the program. Units accrued satisfying admission prerequisites will not count towards the Master's degree. The requirements for advancement to classified status are usually indicated in a student's acceptance letter to the program. Once the student has met all conditions specified by the Department of Biology Graduate Committee, they may apply for advancement to classified status. If the petition is accepted, the student classification will be changed to Classified Graduate Student (GRA2). The Application for Admission to classified status is included as an appendix to this document.

Students admitted as a Conditionally Classified Graduate Student (GRA1) are not allowed to enroll in any 6000-level courses. They are restricted to 5000- and 4000-level courses for which they have met prerequisites.

Advancement to Classified Status (GRA2) must be accomplished within one semester after acceptance as a Conditionally Classified Graduate Student (GRA1). A student may receive credit toward program requirements for no more than 10 units of graduate applicable coursework taken prior to a student successfully advancing to Classified (GRA2) standing. This 10-unit limit includes all coursework taken prior to obtaining GRA2 standing, including transfer and out-of-program units and units taken while a conditionally classified student within the MS Biology program. More information on what units may qualify as transfer or out-of-program units are included in Section 8 of this document.

Classified Graduate Status (GRA2)

Acceptance as a Classified Graduate Student indicates that space has been made available for the student within the program and that the student has met the minimum preparation requirements to commence the program as listed below:

1. An acceptable baccalaureate degree from an accredited institution.
2. An undergraduate GPA of at least 3.0 in the last 90 quarter/60 semester units of course work and Graduate Records Examination scores of 50th percentile or greater (verbal and quantitative).
3. All prerequisite course requirements met.
4. Acceptance into an academic advising relationship with a departmental faculty member (thesis-option).
5. Acceptance will only be granted if space is available for the student in the program.

Students admitted or advanced to classified status (GRA2) are not allowed to enroll in any 6000-level courses. They are restricted to 5000- and 4000-level courses for which they have met prerequisites.

Advancement to Candidate Status (GRA3)

Advancement to candidate status (GRA3) indicates that the student has completed at least 16 semester units within their approved Plan of Study, that they have met the additional requirements listed below, and that there is a reasonable expectation that the student will complete all remaining requirements within one year. Classified Graduate Students will be advanced to Candidate Status when they have met the following criteria:

1. Completion of all requirements for Classified Status.
2. Completion of at least 16 semester units of courses applicable to the Master of Science Degree in Biology with a grade of “B” or better in all courses being applied toward the degree and an overall graduate GPA of at least 3.0.
3. Submitted application for advancement to candidacy that has been approved by the Biology Graduate Director. (Application document is contained as an appendix to this document).

Students in the thesis track must also:

4. Obtain approval of the student’s Graduate Thesis Committee Chair and Graduate Thesis Committee through the successful completion of a thesis proposal and a thesis proposal defense. A separate thesis proposal guideline document is available on the department of biology webpage.
5. Obtain certification by the student’s thesis advisor and Graduate Thesis Committee Chair that there is a reasonable expectation that the student will satisfactorily complete their MS Biology thesis within one year.

Admission to Candidate Status (GRA3) must be attained within two calendar years after acceptance as a Classified Graduate Student.

Students who have advanced to candidate status (GRA3) are allowed to enroll in 6000-level courses.

Progress Through the Program

All requirements and graduation are to be completed within **five calendar years** after initial acceptance as either a Classified or a Conditionally Classified Graduate Student. The five-year time limit can be extended by petition to and approval from the Departmental of Biology Graduate Committee and the Office of Academic Programs.

Completion of all requirements for the Master of Science in Biology requires satisfactory completion of all courses in an approved Plan of Study and satisfactory completion of an exit examination (non-thesis) or thesis, including oral examination and any revisions required by the Graduate Thesis Committee. All students must maintain a graduate GPA of 3.0 or greater. Additionally, students must have received a grade of a B or better for any course or units to

count toward their required graduate courses and units. Students must have taken at least 60% of their course units at the 5000- and 6000-levels.

7. COURSE REQUIREMENTS FOR THE MASTER OF SCIENCE IN BIOLOGY

Graduation Writing Assessment Requirement (GWAR)

All graduate students must pass the Graduation Writing Assessment Requirement (GWAR) with a score of 8 or above. It is recommended that students take this writing proficiency examination in the first year of their graduate studies. Students who graduated with a BS or BA degree from a CSU or UC campus since 1980 have met this requirement and do not need to take the GWAR exam. Students who scored a 4.5 or higher on the analytical writing portion of the GRE General Test have met this requirement and do not need to take the GWAR exam.

Thesis Track (30 semester units)

BIOL 5100 Advanced Experimental Design and Analysis (4)
BIOL 5010 Current Topics in Biology (6; 2 units each and repeated three times)
BIOL 6010 Seminar in Biology (2)
BIOL 6911 Thesis (5)
BIOL 6921 Thesis Defense (1)
*ELECTIVES (4000-, 5000-, or 6000-level courses) (12 units)**

Non-thesis Track (33 semester units)

BIOL 5100 Advanced Experimental Design and Analysis (4)
BIOL 5010 Current Topics in Biology (6; 2 units each and repeated three times)
BIOL 6010 Seminar in Biology (2)
BIOL 6901 Non-thesis examination (1)
*ELECTIVES (4000-, 5000-, or 6000-level courses) (20 units; no more than 12 units at the 4000-level)**

* Selection of elective courses must be approved by the Biology Graduate Director (non-thesis option) or Graduate Thesis Committee (thesis option). With advisor approval prior to course registration, elective courses may include appropriate graduate-level courses offered by CSUB NSME graduate-degree-granting departments other than Biology.

**Students within the graduate program may need to be signed-in to elective courses by the course instructor.

Course descriptions (Graduate Courses)

Course descriptions are contained within the University Catalog:

<https://www.csub.edu/catalog>

8. ADDITIONAL ACADEMIC INFORMATION

University catalog

Full program and university regulations are included within the University Catalog, and links to the relevant sections of the catalog are included below. Additional information about Department of Biology policies are included in this guide.

Division of Graduate Studies: <https://www.csub.edu/catalog/division-graduate-studies-0>

Biology Graduate Program: <https://www.csub.edu/catalog/2020-2021-biology-graduate-program>

Transfer credits and out-of-program units

A maximum of 9 semester units may be applied toward the fulfillment of requirements of the MS Biology program at the time that a student enters the MS Biology program. This includes units from another accredited college or university, from CSUB Open University (e.g., Extended University), or out-of-program units taken at CSUB. Out-of-program units include any courses taken while a student is not an active student with conditionally classified graduate standing (GRA1) or higher within the MS Biology program. These units must be declared at the time that a student applies to the CSUB MS Biology program and their ability to be applied toward graduate program will be assessed as part of the application review. Units that have already been applied to a degree, such as courses applied toward a BA or BS degree, are not eligible to be considered for MS credit. Once admitted to the MS Biology program, no new or additional transfer or out-of-program units are permitted to be applied toward degree requirements, including courses taken through Open or Extended University.

Academic performance requirement

All courses taken to satisfy requirements for the degree as specified in each student's Plan of Study must be passed with grade of a "B" or better.

Academic continuation and academic probation

Graduate students must maintain an overall GPA of 3.0 for all courses taken while a student in the biology graduate program and for all courses taken within their Plan of Study. They must earn a B (3.0) or higher in all courses that are required for the program in the student's Plan of Study, except those graded credit/no credit.

Students who are conditionally classified (GRA1) may not earn less than a B (3.0) in any course or they will be dismissed from the graduate program. Students who have classified (GRA2) or candidate status (GRA3) whose overall or program GPA falls below 3.0 for a term will be placed on academic probation. Students who are on academic probation may not earn less than a B (3.0) in any course or they will be dismissed from the graduate program. Any student who receives more than three grades of C (2.0) or lower will be dismissed from the program regardless of whether they were or were not on academic probation. Students who exceed the time-limit to degree completion (five-year limit) will be dismissed from the program. Academic dismissal from the program will be initiated by the Biology Graduate Director using the Academic Disqualification form and must be approved by the appropriate academic dean and the Office of Academic Programs.

Mentoring

It is our belief that the quality of a student's graduate experience is, in large measure, a reflection of mentoring. In our program, each student is carefully mentored throughout his/her tenure at CSUB. No student will be without an adviser at any time in his/her course of study. Our aim is to include our graduate students in the “every-day life” of the department: offering teaching opportunities, inviting participation in faculty research programs, and welcoming involvement in departmental social events.

Upon acceptance into our program, a student will be advised by a graduate faculty advisor/thesis committee chair (thesis option) or the Biology Graduate Director will serve as advisor (non-thesis option). Thesis students should consult with their Thesis Committee Chair to select two other committee members and complete the COMMITTEE MEMBERSHIP & CONCENTRATION OUTLINE forms.

Academic course load

Eight (8) units of graduate course work per academic term are considered the minimum full-time graduate unit load for the MS Biology program. Typical enrollment is 6-12 units per term. Conditionally classified students must be enrolled in 10 units during their first term in the program.

Continuous enrollment

Graduate students must maintain continuous enrollment in the graduate program. An unauthorized leave of absence of more than 2 consecutive semesters (i.e., the student is not enrolled in any courses or continuing enrollment units) requires that a student reapply to the biology graduate program and reapply to the university (including payment of the non-refundable application fee). Graduate courses that a student completed prior to their leave of absence from the program will be reassessed and will not be automatically accepted for credit in the graduate program upon reapplication. Applicants will be required to meet all program and university admissions requirements at the time of reapplication and, if accepted, will be accepted under the catalog and graduate handbook of their renewed admissions year.

For graduate students who have advanced to candidate status (GRA3), a special low-cost, 7000-level, 0-unit course is available for the purpose of maintaining continuous enrollment at CSUB. The student may continue to register for this course each academic term until the culminating experience requirement for the master's degree is completed. Students should make sure that they meet all program time limits to completion for the graduate program.

Graduate thesis committee membership

The Graduate Thesis Committee is a three-to five-person committee (including Graduate Thesis Committee Chair) selected by the thesis graduate student to oversee progress and completion processes of their thesis. Together the committee chair and student will select and ask at least two additional members to serve on the graduate thesis committee. One member of the committee may be an external member (see information below on policies related to the inclusion of external members), but all other members must be CSUB Biology Graduate Faculty. The inclusion of external members is not required.

A student must obtain the written consent of each member who will serve on the thesis committee (see Appendix for COMMITTEE MEMBERSHIP form). All committee members must be qualified and willing to assist the student in developing the student's project idea and in carrying out their proposed research; thesis projects should be conceived of and designed primarily by the

student, with assistance from the committee to improve the feasibility, impact, and scope of the student-led research. In some cases, a student will rely primarily on the Thesis Committee Chair for thesis development; in other cases, the Graduate Thesis Committee members will be consulted more substantively. It is the student's responsibility to keep all committee members informed of his/her progress and to ask their Thesis Committee Chair for guidance in determining the appropriate level of involvement for the other Graduate Thesis Committee members. Students are encouraged to regularly update their committee on their progress. It is expected that the student and his/her Graduate Thesis Committee will work closely together to identify elective courses.

Inclusion of external members on the graduate thesis committee

Individuals who are not currently Graduate Faculty within the CSUB Department of Biology may serve as participants on the Graduate Thesis Committee of a student when the following conditions have been met:

1. The student and Program Director have invited the individual to participate (invitation must be initiated by the graduate student and must come from the Graduate Program Director);
2. The individual scholar, researcher or practitioner should have a PhD in a biological discipline and also have an interest in the student project;
3. The Program Director has on file a current resume or vitae;
4. When necessary, the individual has successfully completed the Human Subjects Protection training at CSUB; and
5. The role and responsibilities have been explained by the Program Director.

When an external committee member is requested, the Graduate Committee membership must be approved by both the Graduate Program Director and the Chair of the Department of Biology. See the university catalog for additional requirements and qualifications regarding external committee membership.

Inclusion of an optional external thesis reader

Approved 10/20/2020

An individual who possesses expertise on a thesis research topic, but who does not meet the formal requirements to serve as a Graduate Thesis Committee member, may be invited to serve as an external thesis reader. This may include: (a) faculty from other programs or universities, (b) leaders from local businesses or organizations, and (c) community professionals. Up to one external thesis reader may be included as an invited guest of the thesis committee. External thesis readers are not members of the Graduate Thesis Committee. Inclusion of an external thesis reader requires the unanimous approval of the student, advisor, and all members of the Graduate Thesis Committee. This approval may be revoked at any time and by the student or any member of the Graduate Thesis Committee. External thesis readers must acknowledge that they are volunteering their time and effort and acknowledge that they will not be receive any compensation or support.

The external thesis reader may participate in most Graduate Thesis Committee discussions, may read and provide comments on the thesis, and may be present for Graduate Thesis Committee discussions. The external thesis reader may not be included nor participate in Graduate Thesis Committee discussions related to formal evaluation and/or approval of the thesis. The external reader may not be included on nor sign the thesis signature page; they also may not sign anywhere else within the thesis. The external thesis reader may be acknowledged for their input and service within the thesis acknowledgements section.

Individuals may serve as an external thesis reader on the Graduate Thesis Committee of a student when the following conditions have been met:

1. The student, in consultation with their Graduate Thesis Committee, has requested the inclusion of an external thesis reader and the Program Director has invited the individual to participate (invitation must be initiated by the graduate student and must come from the Graduate Program Director);
2. The individual scholar, researcher or practitioner has expertise on the thesis research topic;
3. The Program Director has on file a current resume or vitae;
4. When necessary, the individual has successfully completed the Human Subjects Protection training at CSUB; and
5. The role and responsibilities have been explained by the Program Director.
6. The invited external thesis reader and the Graduate Thesis Committee have submitted signed copies of the External thesis reader participation agreement and an External thesis reader participation committee approval forms.

Concentration outline and Plan of Study

Thesis: Each thesis graduate student should work with their Thesis Committee to complete a CONCENTRATION OUTLINE form that will detail the approved courses for their Master of Science Biology degree. Both the COMMITTEE MEMBERSHIP & CONCENTRATION OUTLINE forms must be completed before the student advances to candidacy. The requirements for the MS Biology (thesis) includes 30 semester units of committee approved graduate work, at least 60% of which must be at the 5000- and 6000-level. Additional courses (prerequisites and/or deficiencies) of study may be required but are not counted as part of the coursework that applies towards this requirement. The concentration outline form should be completed by the Thesis Committee Chair in consultation with all members of the Thesis Committee. Courses should be selected with a focus on gaining depth of knowledge in a particular sub-discipline of biological science. The concentration outline must be submitted to the Graduate Director for review and approval before the end of the second semester after admission to the program. Once approved, the concentration outline becomes the student's formal **Plan of Study**.

Non-thesis: The requirements for the MS Biology Non-Thesis track includes 33 semester units of Biology Graduate Director approved graduate work, at least 60% of which must be at the 5000- and 6000-level. Additional courses (prerequisites and/or deficiencies) of study may be required, but are not counted as part of these units of approved course work. The CONCENTRATION OUTLINE form should be completed in consultation with the Graduate Director, with a focus on gaining depth of knowledge in a particular sub-discipline of biological science as appropriate based on the subject areas of the comprehensive exit exam. The concentration outline must be submitted for approval before the end of the second semester after admission to the program. Once approved, the concentration outline becomes the student's formal **Plan of Study**.

Non-thesis/Thesis program change

Students may wish to change their track within the MS Biology program during their tenure as a student. A student must obtain the written consent of their current or future thesis advisor as well as the Biology Graduate Director to switch their status within the program between non-thesis and thesis tracks (see appendix for the Thesis/Non-thesis Change Form). A new CONCENTRATION OUTLINE must also be developed and submitted with this request, representing the newly proposed courses and course plan for the track that the student will be switching to. If approved,

the Graduate Director will notify the Office of Admissions and Records of the change in the student's degree track and will provide the student's updated Plan of Study.

Non-thesis comprehensive exam

A comprehensive written examination will be the culminating experience for each student in the MS Biology-Non-thesis track. The exam will be offered once each semester: at 9 AM on the first Friday of November and 9 AM on the first Friday of March (the exam date may change depending on annual variations in holiday schedules, but any deviations from the above posted schedule would be announced within the first three weeks of each semester). It is the responsibility of the student to make sure that they are available to take the exam during the term they intend to graduate. It is the student's responsibility to sign-up with the Biology Graduate Director to take the exam on the scheduled exam date by enrolling in BIOL 6901 in the term they intend to take the exam. Some questions are released ahead of time to students enrolled in this course, so that they can work to prepare answers during the term prior to the scheduled exam date. These questions may be obtained from the Biology Graduate Director for students who are enrolled in BIOL 6901.

Thesis

Research leading to the thesis will be the culminating experience for each student in the MS Biology-Thesis track. The thesis will be a substantial product of original empirical research carried out under the close supervision of the student's Thesis Committee. Prior to the initiation of thesis research (and advancement to candidacy), the student must obtain approval from their Graduate Thesis Committee through the successful completion of a thesis proposal and a thesis proposal defense. A separate [thesis proposal guideline document](#) is available on the department of biology webpage.

Students should be enrolled in BIOL 6911 (Thesis) while work toward the thesis is being conducted, analyzed, and written. A [separate thesis guideline document](#) is available on the department of biology webpage to assist students in formatting and composing their thesis document. Students are expected to work closely with their thesis advisor while they develop their thesis and to be in regular contact with their thesis committee.

Thesis students must be enrolled in BIOL 6921 during the semester in which their thesis is defended (including a publicly announced and presented thesis talk as well as an oral defense of the thesis with their graduate committee) and approved. If the student does not complete their thesis during this semester, they will be assigned a grade of NC (no credit) and must re-enroll in BIOL 6921 in the semester in which they defend their thesis. Credit for BIOL 6921 will only be received once the [approved](#) thesis has been submitted to the library.

Commencement

Students will be allowed to participate in the graduation ceremony if, and only if, the student's thesis has been defended and approved by their graduate committee or they have successfully passed the non-thesis comprehensive exam. **Students should therefore not make plans for participating in the graduation ceremony until it becomes evident that the thesis/comprehensive examination will indeed be completed and passed on time!**

Students are reminded that they need to apply to the University for Graduation. More information on university graduation application deadlines can be found at: <https://www.csub.edu/registrar/graduation>.

Note: the application for graduation is due to the university well before the expected semester of graduation. Students should make sure that they are checking these deadlines and that they submit their application into the university on time.

9. FINANCIAL ASSISTANCE AND SCHOLARSHIP OPPORTUNITIES

Students are encouraged to check with the office of Financial Aid & Scholarships as well as the Graduate Student Center for additional information on programs, scholarships, and fellowships. These offices offer up-to-date information on available programs and opportunities.

Scholarship opportunities posted through the Graduate Student Center:

<http://www.csub.edu/graduatestudentcenter/Scholarship%20Opportunities/index.html>

Scholarship opportunities posted through the Office of Financial Aid & Scholarships:

<http://www.csub.edu/finaid/types/index.html>

In addition to the programs described through the links above, additional opportunities for graduate student support may be available through the department of biology. These include:

Graduate Teaching Assistantships (Laboratory Instructor)

A limited number of paid laboratory instructor positions are available. Contact the Biology Graduate Director and the Department of Biology Administrative Support Coordinator if you are interested in serving as a laboratory instructor availability.

Graduate Research Assistantships

Students should inquire with their thesis advisor regarding research assistantship availability within their assigned research laboratory.

10. TIMELINE AND GRADUATE CHECKLIST

Listed below are some of the steps that need to be completed during each year of your tenure in the MS Biology program. Additional information about some of these steps is included below the checklist for each year. The checklist below assumes that students are following the recommended two-year completion timeline for the graduate program

Year 1

First Semester

_____ 1) **ALL STUDENTS**: If required, pass the writing proficiency examination (**GWAR**). Students who have not yet completed this requirement must register for and pass the Graduation Writing Assessment Requirement (GWAR) with a score of 8 or above. The exam is administered two times each academic year. Information for registering for and taking the GWAR: <http://www.csub.edu/testing/tests/test%20description/gwar/>

_____ 2) **CONDITIONALLY CLASSIFIED STUDENTS (GRA1)**: Courses deficiencies identified by the Department of Biology Graduate Committee must be remedied during a student's first semester within the program. Deficiency courses do not count toward completion of units for the MS Biology program.

_____ 3) **CONDITIONALLY CLASSIFIED STUDENTS (GRA1)** must enroll in 10 semester units of graduate applicable coursework during their first term and must earn scores of a B or higher in all of these course units.

_____ 4) **CONDITIONALLY CLASSIFIED STUDENTS (GRA1)**: Once course grades are posted at the end of the first semester students who have successfully fulfilled the activities required to advance (remedy course deficiency and/or take 10 units of biology graduate program applicable coursework and earn a grade of B or higher in all courses), must apply for advancement to classified status. If the petition is accepted, the student classification will be changed to Classified Graduate Student (GRA2). The Application for Admission to classified status is included as an appendix to this document.

_____ 5) **THESIS STUDENTS**: Thesis students should be meeting regularly with their Thesis Committee Chair/thesis advisor to develop their thesis proposal. Thesis students often enroll in 1-3 units of BIOL 5901 (Research) with their advisor and use these units to develop their thesis proposal and collect preliminary data.

Second Semester

_____ 1) **THESIS STUDENTS**: Thesis students should establish a Graduate Thesis Committee in consultation with your thesis advisor/Graduate Thesis Committee Chair. File a COMMITTEE MEMBERSHIP FORM.

_____ 2) **ALL STUDENTS**: Students should establish their formal **Plan of Study** by submitting a CONCENTRATION OUTLINE form for approval. This form should be completed in consultation with a student's Graduate Thesis Committee (**THESIS**) or with the Biology Graduate Director (**NON-THESIS**).

_____ 3) **THESIS STUDENTS**: Thesis students should meet with their Graduate Thesis Committee to present their thesis research proposal by the end of their first year. SEE THE THESIS PROPOSAL GUIDE available on the Department of Biology webpage. Students should work with their Graduate Thesis Committee Chair to develop an approved draft of the thesis project which will then be circulated among the other members of the Thesis Committee for comments. Students must complete any and all revisions suggested by the Thesis Committee before being accepted as a candidate. A copy of the committee-approved thesis proposal must be filed with the Biology Graduate Director and must be submitted by the student at the time that they are applying for advancement to candidacy.

_____ 4) **ALL STUDENTS**: Once course grades are posted at the end of the second semester, students who have successfully fulfilled the activities required to advance should apply for **Advancement to Candidacy** by completing the APPLICATION FOR ADVANCEMENT TO CANDIDACY. Admission to candidate status must be attained within two calendar years after acceptance as a Classified Graduate Student and when there is a reasonable expectation that a student will satisfactorily complete the MS Biology program within one year. **Only students who have advanced to candidacy are permitted to enroll in and receive credit for 6000-level courses.**

NON-THESIS STUDENTS: Non-thesis students may file for advancement to candidacy after they have completed 16 semester units of graduate course work as outlined in their approved Plan of Study with a grade of "B" or better in all courses. They must have Classified status in the program and must have a GPA of at least 3.0. Applications for Advancement to Candidacy for Non-thesis students are submitted to the Biology Graduate Director for evaluation and processing.

THESIS STUDENTS: Thesis students may file for advancement to candidacy after they have completed 16 units of graduate course work as outlined in their approved Plan of Study with a grade of "B" or better in all courses. They must have Classified status in the program and must have a GPA of at least 3.0. Additionally, thesis students must have successfully defended their thesis proposal prior to advancement to candidacy. Applications for Advancement to Candidacy for Thesis students are submitted to their Thesis Committee Chair and, with Committee Chair approval, are then submitted to the Biology Graduate Director for processing.

Year 2

First Semester

_____ 1) **ALL STUDENTS**: **Apply to the University for Graduation.** Note, the application for graduation is due to the university well before the expected term of graduation. Students should

make sure that they are checking these deadlines and that they submit their application into the university on time.

_____ 2) **THESIS STUDENTS**: Thesis students (who have advanced to candidacy) should be enrolled in units of BIOL 6911 (Thesis) and should be using these units to conduct their thesis research as approved by their Graduate Thesis Committee and to begin to prepare their thesis document. See the THESIS GUIDE available on the Department of Biology webpage.

Second Semester

_____ 1) **ALL STUDENTS**: Complete remaining graduate course work as outlined in the student's approved Plan of Study.

_____ 2) **NON-THESIS STUDENTS**: Non-thesis students should register to take the **Non-Thesis Examination** (BIOL 6901). The exam will be offered once each semester, most semesters the exam will be offered at 9 AM on the first Friday of November and at 9 AM on the first Friday of March. Check with the Biology Graduate Director to confirm the test date! It is the responsibility of the student to make sure that they are available to take the exam during the term they intend to graduate.

_____ 3) **THESIS STUDENTS**: Thesis students should enroll in BIOL 6921 (**Thesis Defense**) in their final semester. Following approval from the Thesis Committee Chair/Advisor, the student should distribute their thesis to their other committee members for review. A Thesis Defense should be scheduled no earlier than two weeks following distribution of the entire complete thesis draft to the entire committee. The Thesis Defense will consist of a research presentation and must be announced publicly at least 2 weeks prior to the presentation. This formal presentation should be a detailed review of the Thesis research and should involve slides and/or video displays. The presentation should be 30-40 minutes in duration with an additional 10-15 minutes for questions from the general audience.

Following the presentation, the Candidate will field additional, specific, and in-depth questions from their Graduate Thesis Committee during a closed meeting. After this question and answer session is completed, the Committee will excuse the Candidate and, in private, decide to accept or reject the thesis. Credit for BIOL 6921 will only be granted if the thesis is successfully completed and accepted by a student's Graduate Thesis Committee and following submission of the completed thesis to the library by the required date for completion within that semester.

If the thesis defense is not passed during the students first attempt, they may revise their thesis and redistribute it to the committee once within the same term. Any new distribution of a revised thesis draft resets the two-week timeline for review and a new defense may not be scheduled any earlier than two weeks following the distribution of a revised version of the thesis. The Graduate Thesis Committee may also require that a second research presentation occur. A thesis defense may not be attempted more than two times within a term.

_____ 4) **THESIS STUDENTS**: Thesis students must submit their thesis to the Walter Stiern Library before they will be approved for graduation. Information regarding thesis guidelines and the submission procedure are maintained by CSUB's Walter Stiern Library: <https://csub.libguides.com/etd>

_____ 5) **ALL STUDENTS: Graduation!** Information on the Graduate Hooding Ceremony is available from the university at the following page:

<http://www.csub.edu/commencement/graduates/index.html>

11. TWO-YEAR RECOMMENDED COURSE PLANS

The following course plans may assist students in completing their MS degree within the recommended two-year completion time. These are meant as rough-guidelines and include flexible recommendations. Students should meet with their graduate advisor (Biology Graduate Director or Thesis Committee Chair) for specific recommendations. These course plans also contain additional useful information about goals for each year of the program.

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Thesis Track Sample Schedule (8 units required to be full-time*):

	Fall	Spring																						
Year 1	<table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">Course</td> <td style="width: 30%; text-align: right;">Units</td> </tr> <tr> <td>BIOL 5010 (Current Topics)</td> <td style="text-align: right;">2</td> </tr> <tr> <td>BIOL 4xxx/5xxx (Elective)***</td> <td style="text-align: right;">4</td> </tr> <tr> <td>BIOL 5901 (Research)</td> <td style="text-align: right;">2</td> </tr> <tr> <td style="text-align: right;">Total units:</td> <td style="text-align: right;">8**</td> </tr> </table> <p><i>Students who are conditionally classified should apply for admission as a classified graduate student at the end of their first semester.</i></p>	Course	Units	BIOL 5010 (Current Topics)	2	BIOL 4xxx/5xxx (Elective)***	4	BIOL 5901 (Research)	2	Total units:	8**	<table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">Course</td> <td style="width: 30%; text-align: right;">Units</td> </tr> <tr> <td>BIOL 5010 (Current Topics)</td> <td style="text-align: right;">2</td> </tr> <tr> <td>BIOL 5100 (Adv. Research Design)</td> <td style="text-align: right;">4</td> </tr> <tr> <td>BIOL 5901 (Research)</td> <td style="text-align: right;">2</td> </tr> <tr> <td style="text-align: right;">Total units:</td> <td style="text-align: right;">8</td> </tr> </table> <p><i>BIOL 5901 units are typically used for thesis proposal preparation and defense.</i></p> <p><i>Students may apply for Advancement to Candidacy at the end of their second semester after meeting the following requirements:</i></p> <ol style="list-style-type: none"> <i>1) successful completion of 16 units,</i> <i>2) formation of committee,</i> <i>3) successful proposal defense, and</i> <i>4) completion of a Plan of Study.</i> 	Course	Units	BIOL 5010 (Current Topics)	2	BIOL 5100 (Adv. Research Design)	4	BIOL 5901 (Research)	2	Total units:	8		
Course	Units																							
BIOL 5010 (Current Topics)	2																							
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Course	Units																							
BIOL 5010 (Current Topics)	2																							
BIOL 5100 (Adv. Research Design)	4																							
BIOL 5901 (Research)	2																							
Total units:	8																							
Summer	<i>Many thesis students choose to conduct thesis research over the summer following their thesis proposal defense.</i>																							
	Fall	Spring																						
Year 2	<table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">Course</td> <td style="width: 30%; text-align: right;">Units</td> </tr> <tr> <td>BIOL 5010 (Current Topics)</td> <td style="text-align: right;">2</td> </tr> <tr> <td>BIOL 4xxx/5xxx (Elective)***</td> <td style="text-align: right;">4</td> </tr> <tr> <td>BIOL 6911 (Thesis)</td> <td style="text-align: right;">2</td> </tr> <tr> <td style="text-align: right;">Total units:</td> <td style="text-align: right;">8</td> </tr> </table> <p><i>Students should apply to graduate during this term. Check the university webpage for instructions on how to apply for graduation and the application deadlines.</i></p>	Course	Units	BIOL 5010 (Current Topics)	2	BIOL 4xxx/5xxx (Elective)***	4	BIOL 6911 (Thesis)	2	Total units:	8	<table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">Course</td> <td style="width: 30%; text-align: right;">Units</td> </tr> <tr> <td>BIOL 6010 (Seminar)</td> <td style="text-align: right;">2</td> </tr> <tr> <td>BIOL 6911 (Thesis)</td> <td style="text-align: right;">3</td> </tr> <tr> <td>BIOL 6921 (Thesis Defense)*****</td> <td style="text-align: right;">1</td> </tr> <tr> <td>(For full-time, add 2 additional elective units)*****</td> <td></td> </tr> <tr> <td style="text-align: right;">Total units:</td> <td style="text-align: right;">6</td> </tr> </table> <p style="text-align: right;"><i>Graduation!</i></p>	Course	Units	BIOL 6010 (Seminar)	2	BIOL 6911 (Thesis)	3	BIOL 6921 (Thesis Defense)*****	1	(For full-time, add 2 additional elective units)*****		Total units:	6
Course	Units																							
BIOL 5010 (Current Topics)	2																							
BIOL 4xxx/5xxx (Elective)***	4																							
BIOL 6911 (Thesis)	2																							
Total units:	8																							
Course	Units																							
BIOL 6010 (Seminar)	2																							
BIOL 6911 (Thesis)	3																							
BIOL 6921 (Thesis Defense)*****	1																							
(For full-time, add 2 additional elective units)*****																								
Total units:	6																							

Total Units: 30

*Depending on financial aid requirements, students may not need to be on a full-time schedule. The schedule included above is designed to assist students that require full-time enrollment and who are trying to graduate within two years.

**Students who are conditionally classified must have an additional 2-units (10 total) of coursework in the fall to meet 1st semester requirements

***More than 60% of units must be taken at the 5000- or 6000-level.

****Only 30 units are required for graduation--students not requiring full-time enrollment may wish to not enroll in any additional elective units.

*****This course may be repeated if students do not successfully complete their thesis defense and thesis submission to the library on the first course attempt.

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Non-thesis Sample Schedule (8 units required to be full-time*):

	Fall		Spring	
Year 1	Course	Units	Course	Units
	BIOL 5010 (Current Topics)	2	BIOL 5010 (Current Topics)	2
	BIOL 4xxx/5xxx (Elective)***	4	BIOL 5100 (Adv. Research Design)	4
	BIOL 4xxx/5xxx (Elective)***	4	BIOL 4xxx/5xxx (Elective)***	4
	Total units:	10**	Total units:	10
	<i>Students who are conditionally classified should apply for admission as a classified graduate student at the end of their first semester.</i>		<i>Student should meet with the Graduate Director to confirm their Plan of Study.</i>	
			<i>Students may apply for Advancement to Candidacy at the end of their second semester after meeting the following requirements: 1) successful completion of 16 units, and 2) completion of a Plan of Study.</i>	
	Fall		Spring	
Year 2	Course	Units	Course	Units
	BIOL 5010 (Current Topics)	2	BIOL 6010 (Seminar)	2
	BIOL 4xxx/5xxx (Elective)***	4	BIOL 4xxx/5xxx (Elective)***	4
	(For full-time, add 2 additional elective units)****		BIOL 6901 (Non-thesis Exam)*****	1
	Total units:	6	(For full-time, add 1 additional elective unit)****	
			Total units:	7 <i>Graduation!</i>
	<i>Students should apply to graduate during this term. Check the university webpage for instructions on how to apply for graduation and the application deadlines.</i>			

Total Units: 33

*Depending on financial aid requirements, students may not need to be on a full-time schedule. The schedule included above is designed to assist students that require full-time enrollment and who are trying to graduate within two years.

** Students who are conditionally classified must have an additional 2-units (10 total) of coursework in the fall to meet 1st semester requirements

***More than 60% of units must be taken at the 5000- or 6000-level. (No more than 12 units may be taken at the 4000-level).

****Students are not eligible for BIOL 5911 until after they have successfully completed at least one quarter of graduate course work and until after they are a classified graduate student. BIOL 5911 may only count toward the degree once.

*****Students may consider taking the comprehensive exit exam (BIOL 6901) during the Fall Semester so that they have an additional semester to re-take the exit exam if needed. This course can be retaken if students do not pass exam on their first attempt.

APPENDICES

Additional forms and concentration outlines

CSUB BIOLOGY PROGRAM THESIS COMMITTEE MEMBERSHIP RECORD

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

 (Proposed thesis topic/title)

I agree to serve as a member of the Graduate Thesis Committee for the above-mentioned graduate student and thesis topic (2-4 members, not including the Committee Chair).

 (Committee member name) (Committee member signature) (Date) Y N
 (external?)

 (Committee member name) (Committee member signature) (Date) Y N
 (external?)

 (Committee member name) (Committee member signature) (Date) Y N
 (external?)

 (Committee member name) (Committee member signature) (Date) Y N
 (external?)

I agree to serve as the Chair of the Graduate Thesis Committee for the above-mentioned graduate student and I approve the committee membership of the 2-4 individuals listed above and verify that they meet the requirements needed to be eligible to serve as a member of a Biology Graduate Thesis Committee.

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

The Biology Graduate Director approves the membership of the Graduate Thesis Committee for the above-mentioned graduate student.

 (Graduate Director name) (Graduate Director signature) (Date)

The Chair of the Department of Biology approves the membership of the Graduate Thesis Committee for the above-mentioned graduate student.

(Only required if an external committee member is requested. Formal invitation from the Graduate Director and reply from the requested external member, including a CV, must be attached to this form).

 (Department Chair name) (Department Chair signature) (Date)

When completed, this form should be returned to the Department of Biology Administrative Support Coordinator to be placed in the student's Biology Program file. Copies will be available, upon request, to the student and Graduate Thesis Committee members. If there are changes in committee composition, a new form should be submitted, which will replace any previously submitted forms.

APPLICATION FOR ADVANCEMENT TO CANDIDACY (THESIS)

PART I *Completed by student*

STUDENT NAME: _____ ID #: _____

The student has completed _____ units with a _____ grade point average. (Must be ≥ 16 units with an overall graduate GPA ≥ 3.0 and all counted units passed with a grade of B or better)

A concentration outline has been completed and approved. A copy is attached. (check box)

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. (check box)

Student signature _____ Date _____

PART II *Approvals*

The following members comprise the student's thesis graduate committee and they have signed below to indicate their approval of the student's thesis proposal and successful completion of their proposal defense:

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

The Committee Chair provides their signature as an affirmative recommendation of eligibility of the student to continue with the program, attesting to the student's demonstration of a satisfactory level of scholastic competence, and the likely completion of the thesis within one year of advancing to candidacy.

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

The Graduate Program Director provides their signature as an affirmative recommendation of eligibility to Advance to Candidacy.

(Graduate Director name) (Graduate Director signature) (Date)

APPLICATION FOR ADVANCEMENT TO CANDIDACY (NON-THESIS)

PART I *Completed by student*

STUDENT NAME: _____ ID #: _____

The student has completed _____ units with a _____ grade point average. (Must be ≥ 16 units with an overall graduate GPA ≥ 3.0 and all counted units passed with a grade of B or better)

A concentration outline has been completed and approved. A copy is attached. (check box)

Student signature _____ Date _____

PART II *Approvals*

The Graduate Program Director provides their signature as an affirmative recommendation of eligibility to Advance to Candidacy. The student has demonstrated a satisfactory level of scholastic competence by meeting the criteria established for this program of study.

(Graduate Director name) (Graduate Director signature) (Date)

CONCENTRATION OUTLINE-NT
DEPARTMENT OF BIOLOGY
 MS Degree (Non-thesis Option)
 Catalog (2019-2020)

Name: _____
 Address: _____

 ID#: _____

Course number **Date** **Units** **Grade**

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

BIOL 5010 (2 semester units each)	_____	<u>2</u>	_____
	_____	<u>2</u>	_____
	_____	<u>2</u>	_____

The following courses are required:

BIOL 5100 (4 semester units)	_____	<u>4</u>	_____
BIOL 6010 (2 semester units)	_____	<u>2</u>	_____
BIOL 6901 (1 semester units)	_____	<u>1</u>	_____

ELECTIVES (20 semester units required; No more than 12 semester units may be at the 4000-level):

<u>Course number/name</u>	<u>Date</u>	<u>Units</u>	<u>Grade</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

UNIT TOTALS: *(must be ≥33)* _____

Additional requirements:

GWAR satisfied _____

Overall GPA ≥3.0 with a B or greater in ALL graded courses and units that apply toward degree _____

Approval

 (Graduate Director name)

 (Graduate Director signature)

 (Date)

CONCENTRATION OUTLINE-T
DEPARTMENT OF BIOLOGY
MS Degree (Thesis Option)
Catalog (2019-2020)

Name: _____
 Address: _____
 ID#: _____

Course number **Date** **Units** **Grade**

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

BIOL 5010 (2 semester units each)
 _____ 2 _____
 _____ 2 _____
 _____ 2 _____

The following courses are required:

BIOL 5100 (4 semester units)
 _____ 4 _____

BIOL 6010 (2 semester units)
 _____ 2 _____

BIOL 6911 (5 semester units; no more than 3 in a semester)
 _____ _____ _____
 _____ _____ _____
 _____ _____ _____

BIOL 6921 (1 semester unit)
 _____ 1 _____

ELECTIVES (12 semester units required; No more than 12 semester units may be at the 4000-semester level):

Course number/name **Date** **Units** **Grade**

UNIT TOTALS: *(must be ≥30)* _____

Additional requirements:

GWAR satisfied _____

Overall GPA ≥3.0 with a B or greater in ALL graded courses and units that apply toward degree _____

Approvals

 (Thesis Advisor name) (Thesis Advisor signature) (Date)

 (Graduate Director name) (Graduate Director signature) (Date)

REQUEST FOR MS PROGRAM NON-THESIS/THESIS CHANGE

Student Information:

Name: _____			Campus ID # _____		
Last	First	M.I.			
Address: _____					
Street	Apt. #	City	State	Zip Code	
Student Signature _____			Date _____		

Change Request:

<p>Present:</p> <p>Degree Objective: MS Biology</p> <p>Track (Check One):</p> <p><input type="checkbox"/> Thesis <input type="checkbox"/> Non-Thesis</p>	<p>Request is submitted to change to:</p> <p>Degree Objective: MS Biology</p> <p>Track (Check One):</p> <p><input type="checkbox"/> Thesis <input type="checkbox"/> Non-Thesis</p>
---	---

Approval (Both signatures are required):

If changing from Thesis to Non-thesis this should be the signature of the current thesis advisor. If changing from Non-thesis to Thesis this should be the signature of the faculty member who will become the thesis advisor.

Approved: _____	Signature	Date: _____
Print Name Thesis Advisor		
Approved: _____	Signature	Date: _____
Print Name Biology Graduate Director		

APPLICATION FOR ADMISSION TO CLASSIFIED STATUS

(Student name)

(Student CSUB ID #)

(Date)

CRITERIA REQUIRED TO ADVANCE TO CLASSIFIED GRADUATE STUDENT STATUS:

The following criteria have now been met (complete all that apply):

For conditionally classified students with deficiencies in their prerequisite coursework:

Student has taken the following courses or their equivalent (list the earned grade next to any courses taken as a conditionally classified student):

- _____ BIOL 3120 Research Design and Analysis
- _____ BIOL 3010 General Genetics
- _____ BIOL 3020 General Physiology
- _____ BIOL 3110 General Ecology
- _____ BIOL 4100 Evolution

For all conditionally classified students:

_____ The required number of **10 units** of biology graduate program applicable units were taken within the first semester in the program.

_____ All courses were passed with a grade of **B or better** for graduate coursework taken while a conditionally classified student within the MS Biology program (list all courses and grades in the lines below):

<u>Course number/name</u>	<u>Date</u>	<u>Units</u>	<u>Grade</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SIGNATURES:

STUDENT _____ Date _____

The Biology Graduate Director has examined the above criteria and affirms that the Graduate student listed above has met the criteria to advance to status as a Classified Graduate Student. The student is approved for admission as a Classified Graduate Student within the MS Biology program.

(Graduate Director name)

(Graduate Director signature)

(Date)

**CSUB MS BIOLOGY PROGRAM
EXTERNAL THESIS READER PARTICIPATION AGREEMENT**

(Graduate student name)

(Graduate student CSUB ID #)

(Date)

(Proposed thesis topic/title)

The following rules and responsibilities apply to external thesis readers:

- 1) External thesis readers are able to participate in Graduate Thesis Committee meetings and provide input and guidance on the thesis project; however, external thesis readers are not members of the formal committee and do not have the ability to vote in or otherwise influence the thesis approval decision of the committee.
- 2) The CSUB MS Biology program does not offer any compensation or support for Graduate Thesis Committee participation. External thesis readers acknowledge that they are volunteering their time and effort and that they will not be receive any compensation or support.
- 3) External thesis readers are guests of the Graduate Thesis Committee and their invitation requires the unanimous consent of the committee, including the graduate student, thesis advisor and committee chair, and committee members. This invitation may be revoked at any time and by any members of the committee.

I agree to serve as an External Thesis Reader as an invited guest of the Graduate Thesis Committee for the above-mentioned graduate student and thesis topic. I acknowledge the rules and responsibilities as described above.

(External thesis reader - name)

(signature)

(date)

