UC SANTA CRUZ

Molecular, Cell and Developmental Biology

Graduate Program Handbook

Matriculating Year: Fall 2022

Revised: July 29, 2022

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Introduction

The goal of the graduate program in Molecular, Cell and Developmental Biology is to prepare students to become independent, rigorous, and ethical scientists by equipping them with the tools necessary to succeed in academia, industry, education, policy, law, or any other career of their choice. To achieve this goal, students are expected to become knowledgeable in their area of research, learn to identify scientific questions independently, take ownership of a question they will address in their research, master the needed methodologies, generate and analyze data rigorously, and disseminate their findings via oral, written, and electronic forms of communication.

The MCD Biology Graduate Handbook serves as a guide to our program. The handbook spells out departmental requirements, procedures, timelines, forms, and other essential information concerning progress toward a Ph.D. or M.S. Degree in MCDB. Students and faculty are expected to be familiar with the content of this publication. Use of this guide is in addition to consulting with the faculty adviser, the graduate advising committee, and the graduate program coordinator (Grace Kistler-Fair).

The Department is governed by an appointed chair who has responsibility for both the undergraduate and graduate programs. The Graduate Advising Committee (GAC) consists of faculty appointed by the chair to oversee the affairs of graduate students; one member is appointed as the Chair of GAC Advising by the department chair.

The Ph.D. track in Molecular Cell and Developmental (MCD) Biology is designed to prepare students for productive careers in biological research and teaching. This training program emphasizes applying diverse approaches, including biochemistry, genetics, genomics, and imaging, to address important questions in molecular, cellular, and developmental biology. Interdisciplinary research is encouraged and supported by a diverse group of faculty from the Departments of Molecular, Cell & Developmental Biology (MCDB), Chemistry & Biochemistry (Chem), Microbiology & Environmental Toxicology (METX), Biomolecular Engineering (BME), the Santa Cruz Institute for Particle Physics (Physics), and Ecology & Evolutionary Biology (EEB). Faculty in the research program have varied scientific interests in areas such as RNA biology, epigenetics and gene regulation, genomics, cell growth and signalling, cancer, stem cells, neurobiology, structural biology, and microbiology.

Our graduate program values the diverse perspectives and talents that students from different backgrounds bring to the scientific enterprise. We aspire to maintain an equitable and inclusive environment of scholarship and research.

MCD Faculty

Manny Ares	Mechanisms and regulation of splicing machinery; structure and function of small RNAs
Joshua Arribere	RNA quality control, translation, and mRNA degradation
Needhi Bhalla	Mitotic and meiotic chromosome dynamics
Hinrich Boeger	Chromatin structure and gene regulation
Guido Bordignon	Biology education research (BER), evidenced-based teaching strategies
David Boyd	Viral immunology, respiratory viruses, stromal cells, lung biology, lung extracellular matrix
Susan Carpenter	Long non-coding RNAs in innate immunity
Bin Chen	Molecular control of neuronal identity and connectivity in mammalian brains
Bradley Colquitt	Neuroscience, neural circuitry, production and learning of birdsong, behavioral evolution

Valerie Cortez	RNA viruses, epithelial biology, and mucosal immunology
David Feldheim	Topographic mapping in the vertebrate CNS
Carol Greider	Telomerase and telomere length regulation
Giulia Gurun	Chromatin, Epigenetics, Teaching & Learning
Grant Hartzog	Chromatin and transcription
Lindsay Hinck	Cellular interactions during organogenesis and tumorigenesis
Melissa Jurica	Structural approaches to large macromolecular complexes
Rohinton Kamakaka	Transcriptional silencing and insulators
Doug Kellogg	Coordination of cell growth and cell division
Euiseok Kim	Connectivity, function, development, and genetic identity of neural circuits
Jeremy Lee	Molecular biology education & curricula; Drosophila models of neurodegeneration
Harry Noller	Ribosome structure and function; RNA structure; RNA-protein interactions
Sofie Salama	Molecular biology, Cell Biology, Stem Cells, Genomics, Neurobiology, Cancer
Jeremy Sanford	Post-transcriptional control of gene expression
Upasna Sharma	Small RNA-mediated intergenerational epigenetic inheritance
Shaheen Sikandar	Functional heterogeneity among normal and cancer stem cells
Susan Strome	Epigenetic regulation of germ cell fate and development
Bill Sullivan	Cell cycle, cytoskeleton, and host-pathogen interactions
John Tamkun	*Drosophila* developmental genetics; regulation of gene expression
Dan Turner-Evans	Neuroscience, dynamical systems, microcircuits, and structure-function relationships
Olena Vaske	Genomic medicine for pediatric cancers and constitutional genetic disorders
Zhu Wang	Cell of origin and circulating tumor cells in prostate cancer
Jordan Ward	Probing *C. elegans* development, cellular differentiation, and parasitic disease
Al Zahler	Pre-mRNA splicing and microRNA function
Martha Zuniga	Regulation of immune responses in health and disease
Yi Zuo	Functions of glia at the synapses in the mammalian nervous system

MCD Affiliates

Vicki Auerbuch Stone (METX)	Innate immune responses to the human pathogen *Yersinia pseudotuberculosis*
Angela Brooks (BME)	Computational biology, RNA splicing, genomics, cancer
Manel Camps (METX)	Use of random mutagenesis for studies of evolution and for therapy
Raquel Chamorro-Garcia (METX)	Epigenetic mechanisms of genome-environment transgenerational inheritance
Russell Corbett-Detig (BME)	Population and evolutionary genomics, bioinformatics
Rebecca Dubois (BME)	Structure, function, and engineering of virus proteins
Camilla Forsberg (BME)	Mechanisms of stem cell fate decisions
David Haussler (BME)	Computational biology
Ted Holman (Chem)	Role of lipoxygenase in inflammatory diseases
Tim Johnstone (Chem)	Medicinal bioinorganic chemistry; synthetic inorganic chemistry
Jacqueline Kimmey (METX)	Host-pathogen interactions and dynamics in *Streptococcus pneumoniae* infection
Sarah Loerch (Chem)	RNA-protein complexes, electron cryo-microscopy, biochemistry, biophysics
Scott Lokey (Chem)	Bioorganic chemistry, cyclic peptides, cell cycle, and signaling
Todd Lowe (BME)	Large-scale approaches to studying whole-genome biology
John MacMillan (Chem)	Natural products chemistry, chemical biology, structural elucidation, cancer
Shaun McKinnie (Chem)	Discovery and application of natural product biosynthesis
Karen Miga (BME)	Centromere sequence characterization, satellite DNA evolution, epigenetic annotation
Glenn Millhauser (Chem)	Prions, metallobiochemistry, agouti and melanocortin signaling
Karen Ottemann (METX)	Environmental responses of pathogenic bacteria

Carrie Partch (Chem)	Molecular mechanisms of circadian rhythmicity
Benedict Paten (BME)	Genome analysis and precision medicine
Michael Patnode (METX)	Diet, immunity, human gut microbial ecology
Seth Rubin (Chem)	Biomolecular structure and mechanism
Chad Saltikov (METX)	Molecular biology and ecology of bacteria that metabolize toxic metals
Bill Scott (Chem)	Structure and function of RNA, proteins, and their complexes
Beth Shapiro (EEB)	Population dynamics and changes in diversity in response to environment
Ali Shariati (BME)	Cell fates, genome engineering, stem cells, transcription, chromatin
Alexander Sher (Physics)	Development of experimental techniques for the study of neural function
Donald Smith (METX)	Molecular and functional impacts of neurotoxic agents
Michael Stone (Chem)	Structure and dynamics of nucleic acids and protein-nucleic acid complexes
Christopher Vollmers (BME)	DNA sequencing tools for the analysis of B cells
Fitnat Yildiz (METX)	Mechanism of persistence and survival of *Vibrio cholerae*

Administrative Structure and Department Information

Two committees guide the MCD graduate program:

Graduate Admissions Committee (GAC for Admissions)
The Admissions Committee is composed of 4-5 program faculty. Responsibilities include reviewing applications, planning recruiting activities, accepting students, and developing offers of support.

Graduate Advising Committee (GAC for Advising)
The Advising Committee is composed of 3-4 program faculty. Responsibilities include student orientation and advising, arranging rotation assignments, assigning qualifying examination committees, scheduling and monitoring third year talks, ensuring that Thesis Advisory Committee meetings are held yearly, and allocating University support for continuing students.

For the 2022-23 academic year, the GAC Advising Committee members are:

Rohinton Kamakaka (chair)
Joshua Arribere
Needhi Bhalla
David Feldheim
Euiseok Kim

Department Information
Location: Sinsheimer Labs, room 225
Mailstop: MCD Biology
Phone: (831) 459-4986
Fax: (831) 459-3139

Office Hours
Monday-Friday, 8am-12pm & 1-5pm. Closed 12-1pm for lunch.

Application and Admission to the MCD Ph.D. Program

Deadlines

The Ph.D. application deadline is December 1 for admission to the program in the fall of the following academic year. Application procedures and information are available on the MCD track web page (http://pbse.ucsc.edu/about/application.html). Online applications are available at https://www.gradadmissions.ucsc.edu/. After the deadline, files are reviewed by the Admissions Committee. Late applications are accepted only in exceptional circumstances and are subject to available resources. The Admissions Committee will review no applications after April 30 of each academic year.

Admission Criteria

The Admissions Committee evaluates candidates based on numerous indicators of potential, which include but are not limited to the following:

- Evidence of research potential and commitment to research in the statement of purpose
- Previous research experience
- Evidence of research potential in letters of recommendation (3 required)
- GPA
- Grades in relevant undergraduate courses
- Evidence of quantitative and analytical skills
- Evidence of ability to communicate in writing
- Indications of special expertise, experience, or cultural perspectives that the student may contribute to our program
- Performance in interviews

Note that GRE scores are no longer required or considered

Admission Process

After evaluation of each file, the Admissions Committee ranks the applicants. The number of offers made can fluctuate from year to year, depending on the relative strength and size of the applicant pool, and resources available. The MCD program is committed to supporting all of its graduate students for the 5 years of a normal degree. Therefore, our total number of offers is guided by the resources (e.g. Teaching Assistantships (TAs), Graduate Student Researcher (GSR) positions, Fellowships, etc.) that we expect to have available.

The top-ranked applicants are contacted by telephone and invited for a formal interview visit organized by the Admissions Committee prior to any offer. Many interviews are held over a 2-day period in January or February. Prospective students meet with MCD Biology faculty and students. Feedback from the interview is used to determine final offers. The Graduate Division formally notifies prospective students of the offer by March 15. Students are required to accept or decline the offer by April 15.

International Students

We encourage international students to apply. Out-of-state tuition rates remain in effect for the duration of the degree for international students. Depending on available resources, the University might cover a proportion of the out-of-state tuition after a student gives their 3rd year seminar and advances to candidacy.

Since the Ph.D. program requires students to TA at least twice during their graduate career as part of their training, it is important for international students to successfully meet eligibility requirements to TA before beginning the program. More information about ways for international students to meet the TA eligibility requirements can be found on the Graduate Division Admissions website: https://www.gradadmissions.ucsc.edu/international-applicants

Getting Started

General Advising

In the 1st year, the MCD Advising Committee and the faculty who supervise rotations are responsible for providing academic and research advice. After students join their thesis lab, then the thesis advisor assumes guidance responsibilities. For additional guidance, students in their 2nd year assemble a Thesis Advisory Committee and meet with that committee at least once a year until graduation to discuss research progress and directions (see Selection of the Thesis Advisory Committee). Students are always welcome to seek additional advice from the Advising Committee, especially concerning procedural issues. The Graduate Coordinator in the MCD Biology Office, Grace Kistler-Fair, provides administrative support to all MCD students.

UCSC Email Account

All MCD graduate students will have an email account set up for them by the time they arrive for fall quarter. The email address for each graduate student is included in a departmental alias, mcdgrads@ucsc.edu. The majority of communications with students from the department office will be done through email; students should develop the habit of checking email at least once a day.

Mailboxes

A mailbox will be assigned to rotation students in the Sinsheimer Laboratories mailroom. After students join their thesis lab, their mail will be directed to the laboratory mailbox. All campus mail addressed to the student will be delivered to that location. The student may also use that address for outside mail related to their student career. The mailstop is MCD Biology. Students should use their home address for personal mail, bills, etc.

Keys/Access Cards

Students who need to access lab space or buildings can fill out a PBSci key/card access request using the system found on the PBSci facilities website.
-If you require brass key access, please submit your request here: https://keys.adc.ucsc.edu/adckey
-If you require electronic card access, please submit your request here:
https://toolkit.science.ucsc.edu/facilities-management/building-access-security/

Please direct any questions regarding building access to pbscikeys@ucsc.edu

Office Supplies

Graduate students should purchase their own office supplies for use in classes they take. The MCD Biology office does not provide those supplies. Students serving as a teaching assistant (TA) for a course may obtain supplies needed to perform their TA duties from the appropriate office. Such supplies might include markers for discussion sections, pens to

use in correcting papers, and paper for documentation. After students join their thesis lab, they should consult with the lab P.I. about funding for supplies.

Photocopying

There are photocopiers available on the 2nd and 3rd floors of Sinsheimer Laboratories for instructional and personal copying. A dedicated card is issued to the instructor of each course, for use by the instructor and the TA(s). After students join their thesis lab, they should consult with the lab P.I. about funding for photocopying. For personal copying, students may purchase copy cards at the Science or McHenry Libraries.

TA Assignments and TA Duties

At the end of each academic year, graduate students and their advisors are surveyed about their teaching needs for the next academic year. Teaching assignments are made to serve the needs of undergraduates while balancing the financial needs of graduate students, past performance and assignments, requests of the instructors, course enrollment, and the needs of the department. Students should feel free to communicate with the Graduate Coordinator (Grace Kistler-Fair) about their teaching preferences. To better prepare students to serve as TAs, students in their first year take the course Biol 288 Pedagogy in STEM.

Because teaching experience is a requirement of the Ph.D., all students serve as a teaching assistant (TA) for a minimum of 2 quarters during the course of their graduate studies, as part of their academic training. This may include 1 or more quarters of TAship during the 1st year.
Students are expected to remain actively engaged in their research while they are serving as a TA.

TA Duties
In addition to attending and assisting in lectures, TAs are generally expected to lead discussion sections and hold weekly office hours. A Teaching Assistantship is usually a 50% appointment. The total commitment should be no more than 20 hours per week (220 hours per quarter). The remaining time should be devoted to research activities. TA duties include formal contact hours in class and lab sections; grading problem sets, lab reports, and exams; attending the instructor's lectures; preparing for sections; holding office hours, attending TA meetings, etc. TAs will respect the confidentiality of student records in compliance with the Federal Educational Records Privacy Act (FERPA). All UC employees, unless specifically designated as confidential, are required to report incidents of sexual harassment and sexual violence involving students to the Title IX Office. This reporting requirement applies to graduate student TAs and other student employees.

An agreement between the Academic Student Employees/UAW union and UCSC sets Teaching Assistant salaries annually. Besides being a form of employment, a TAship provides training in pedagogy and also provides financial aid in that it pays for most of a student's quarterly tuition and fees. More information about TA salary and the TA campus fee can be found below.

It is important to fulfill all the teaching assignments and responsibilities of the Teaching Assistantship. The MCD Biology Department considers prior TA performance when awarding TAships each quarter. Unsatisfactory performance will affect priority for subsequent TA assignments and TAship renewal.

Teaching Labs and Discussion Sections
The primary teaching responsibilities for most MCD TAs are laboratory teaching and discussion section(s). TAs generally teach either 2-3 lab sections or 2 discussion sections per week. TAs are expected to be well-prepared for their sections. A critically important responsibility for lab TAs is to ensure safety in the laboratory. To this end, not only TAs but all graduate students are required to complete the Lab Safety Training offered by the PBSci Division's Environmental Health & Safety

office. Requirements and responsibilities for teaching discussion sections may vary and should be discussed with the course instructor prior to the start of the quarter.

Record Keeping and Evaluations
TAs need to keep records of student attendance in sections, completion of assigned experiments or problem sets, grades on quizzes, exams, and other homework. Assessment of lab section students also includes grading lab reports and periodic inspection of lab notebooks. Undergraduates complete written evaluations of their TAs and professors at the end of the course. Student evaluations of teaching provide valuable guidance and comments to TAs and become a part of institutional records. TAs are required to read their evaluations each quarter and are encouraged to take them seriously and consider improvements they may incorporate in future teaching assignments.

Office Hours
TAs must hold office hours when they will be available for consultation with students. They should arrange at least two 60-minute periods per week at times that are convenient for both the TA and the students. Usually TAs hold office hours in Thimann Labs, where rooms are available weekdays between 8:15am and 5:00pm. TAs are not allowed to hold office hours or other meetings with students in conference rooms or communal areas in Sinsheimer Labs and the Biomed building. Announcements will be emailed to TAs each quarter for information about office hour rooms and reservation procedures.

Responsibility for Teaching Sections
TAs are responsible for teaching their assigned sections at the day, time, and location arranged. If an unavoidable absence such as illness prevents a TA from teaching their section, they should contact the instructor of the class as soon as possible so that arrangements for a qualified replacement can be made.

Summer TAships
It is expected that faculty mentors will cover their students for summer support. Only in cases of extreme need should a student TA over the summer.

Association of Student Employees (ASE/UAW)
UCSC TAs are represented by a bargaining unit. The full text of the current agreement can be accessed online at: https://shr.ucsc.edu/elr/contracts/bx.html

Meeting Rooms

To make reservations in one of our department conference rooms, students may use the online reservation request system:
https://mcd.ucsc.edu/news-events/mcd_conf_room_schedule/index.html

Poster Printing

The Chemistry Department hosts the PBSci Division's Poster Printer. This machine is a self-service printer that is available for use by PBSci departments only. Use of the poster printer is by appointment only. To view availability and schedule an appointment: https://toolkit.science.ucsc.edu/chemistry-biochemistry/department-printers-poster-printer/

Financial Support

The MCD program strives to support graduate students for up to 5 years. Support is provided in the form of Graduate Student Researchships (GSRs), Teaching Assistantships (TAs), and a limited number of fellowships. Graduate advisors generally support their students during the summer as GSRs.

First Year Funding

During the 1st year, support is a combination of TA salary and/or GSR salary and/or UC Regents' fellowship, and departmental grants. Because of the combination of payment methods (fellowship stipends paid in lump sums vs monthly TA paychecks), financial support during the 1st year is on an irregular schedule.

During subsequent years, students generally receive support in the form of TAships and GSR salaries and individual fellowships that students may be awarded from external agencies (e.g. NIH, NSF, HHMI, the Ford Foundation).

Listed below are schedules of when students can expect to receive paychecks. Students should budget accordingly for gaps between payments in the 1st year. For emergency loans, eligible graduate students may apply for the Financial Aid Emergency Advance Program:
https://financialaid.ucsc.edu/types-of-aid/loans/ucsc-financial-aid-emergency-advance-program.html

TA Salary

Effective 10/1/2021, the 50% Teaching Assistant salary is $7,748 per quarter.

Paycheck dates are scheduled for the 1st day of the month ***following*** the month worked. The TA paycheck disbursement schedule for each quarter is below:
Fall quarter = Nov. 1st, Dec. 1st, Jan. 1st
Winter quarter = Feb. 1st, March 1st, April 1st
Spring quarter = May 1st, June 1st, July 1st
Summer quarter = Aug. 1st, Sept. 1st, Oct. 1st

In-state tuition is paid by the TAship. For 1st year rotation students, the department covers the "Campus Fee" which is currently $354 per quarter.

Important Note: After the 1st year, during the quarter when a student TAs, the student needs to pay the Campus Fees out of pocket until they Advance to Candidacy (ATC). Students who advance within normative time receive a fee offset grant for two calendar years after advancement, as long as they are continuously enrolled during the academic year.

Out-of-state tuition is not covered by the TAship. For 1st year rotation students, out-of-state tuition is covered by the department. Students entering the program from out-of-state are advised to establish their California residency during their 1st year in the program in order to avoid out-of-state tuition assessment in subsequent years in the program. The department will generally not pay a student's non-resident tuition beyond their 1st year in the program.

Once you have completed your hire paperwork with the Academic Personnel office, you are highly encouraged to sign up for direct deposit through UCPath (https://ucpath.ucsc.edu/). UCPath is the system

used to process your paychecks for your TA and GSR appointments. Here is a UCPath FAQ flyer for academic students: https://ucpath.ucsc.edu/documents/academic-students-faq-flyer.pdf

TA Campus Fee

Students should read the Q&As below to determine if they are responsible for paying the TA campus fee:

Do I have to pay quarterly campus fees?

1. Will you be employed as a TA this coming quarter/year? If yes, see questions #2 and #3
2. Do you still need to ATC (Advance to Candidacy)?
3. Has it been more than 2 years (6 quarters) since you advanced to candidacy?

If you answered yes to #1 and either #2 or #3, then you will be responsible for payment of Campus Fees (1st year rotation students may disregard this).

What am I paying for?

This $354 amount is your portion of your registration/campus fees. When graduate students TA, the majority of their campus fees are paid by the Graduate Division, but the other portion is paid by the graduate student to cover the difference.

How much is the portion of the fees that I will be responsible for?

$354 per quarter ($118 per month)

How do I pay these fees?

You may pay by method 1 or 2 below:

1. Pay it in full at the beginning or end of the quarter (posted and paid via MyUCSC Portal) - check your Portal monthly to check when it gets posted and note the due date.
2. Sign up for a fee deferment with the Graduate Division and have the charge deducted from your TA paychecks in 3 equal payments. The fee deferment form is due 2 weeks into the quarter in which you are TAing. Students can now apply for a fee deferment directly through their MyUCSC accounts, under the "Graduate Student eForms section". Instructions on how to access the form can be viewed here.

If the TA fee is not paid, an enrollment hold is put on your account for the following quarter.

UC Regents' Fellowships/UCSC Fellowships

Typically UC Regents' Fellowships and UCSC Fellowships are awarded in the 1st year only. These lump sum stipends post to students' MyUCSC Student Portal the 1st week of the quarter (late Sept. for Fall, early Jan. for Winter, and early April for Spring). The lump sum stipend needs to last the entire quarter, so students should budget accordingly. During the quarter when a student receives a Regent's Fellowship, the department covers all tuition expenses including the Campus Fees.

Direct Bank Deposit enables the University to electronically transfer credit balances from students' billing accounts to their personal checking or savings account. It eliminates the wait time for the mail to arrive and is the most secure method to receive payment. Students can sign up for direct deposit through their Student Portal.

Graduate Student Researcher (GSR)

Effective 10/1/2021, the 50% GSR step 8 salary is $9,242 per quarter.

A Graduate Student Researcher (GSR) is a full-time registered UCSC graduate student appointed to assist in performing research under the direction of a ladder-rank faculty member or authorized Principal Investigator. GSRs qualify for full fee and tuition remission (including Campus Fees) if they are appointed for at least 25%. GSR tuition and campus fees are paid by the student's PI. Students entering the program from out-of-state are advised to establish their California residency during their 1st year in the program in order to avoid out-of-state tuition assessment in subsequent years in the program.

Paycheck dates are scheduled for the 1st day of the month ***following*** the month worked. The GSR paycheck disbursement schedule for each quarter is below:
Fall quarter = Nov. 1st, Dec. 1st, Jan. 1st
Winter quarter = Feb. 1st, March 1st, April 1st
Spring quarter = May 1st, June 1st, July 1st
Summer quarter = Aug. 1st, Sept. 1st, Oct. 1st

Once you have completed your hire paperwork with the Academic Personnel office, you are highly encouraged to sign up for direct deposit through UCPath (https://ucpath.ucsc.edu/). UCPath is the system used to process your paychecks for your TA and GSR appointments. Here is a UCPath FAQ flyer for academic students: https://ucpath.ucsc.edu/documents/academic-students-faq-flyer.pdf

Registration and Enrollment

Enrolling in Courses

Graduate Students are expected to enroll in at least **15 units** each quarter to maintain full time status. This can be accomplished by enrolling in:

- Biol 291/292 (weekly seminar series)
- Courses (Core, Electives)
- Biol 280 Lab Meetings (or the equivalent in other tracks)
- Biol 297 Pre-Advance to Candidacy (pre-ATC) independent study research (class number will be provided by the Graduate Program Coordinator each quarter)
- Biol 299 Thesis Research (class number will be provided by the Graduate Program Coordinator each quarter)

How to Enroll and Late Fees

Students enroll in classes online through their UCSC Student Portal (my.ucsc.edu) by entering their student ID and password. In this way they establish the official record of all courses for which they are accountable in the current quarter. They are responsible for verifying their enrollment on the web site by the published deadline for each quarter (see the Academic and Administrative Calendar at https://registrar.ucsc.edu/calendar/academiccalendar.html). No credit can be earned for courses in which they do not officially enroll. Their registration may be cancelled or fee credits put on hold if they fail to enroll in classes by the published deadline. If they are a teaching assistant (TA) or a graduate student

researcher (GSR) and fail to enroll in classes, their employment with the University will be terminated. For enrollment help, email registrar@ucsc.edu or call (831) 459-4412.

IMPORTANT: A $50 late enrollment fee is assessed if students have not enrolled by the 7th day of instruction in any quarter. Refer to the quarterly Schedule of Classes or the annual Academic and Administrative Calendar for dates https://registrar.ucsc.edu/calendar/academiccalendar.html

ALSO IMPORTANT: If students have not enrolled in at least 5 units by the 1st day of the quarter, a hold will be put on their financial aid (TA or GSR fee credits, fellowships, loans, etc).

Grading Options: Letter Grades vs. Satisfactory/Unsatisfactory (S/U)

By default, all grades are set to S/U when students enroll. Letter grades should be requested for courses that require letter grades (e.g. graduate core courses) and must be requested at the time of enrollment. A Satisfactory, or passing, grade for a graduate student means an A or B letter grade.
Biol 291, 292, 280, 288, and 289 should be taken for a Satisfactory/Unsatisfactory grade (S/U) only.

Ph.D. Program

Timeline for the Ph.D. Degree

*Biol courses with an asterisk indicate **required** courses

Year 1	
Fall	• Advisory meeting with the MCD Graduate Advising Committee (GAC) • *Biol 200A Critical Analysis of Scientific Literature • *Biol 200E Experimental Design • *Biol 288 Pedagogy in STEM • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Rotation Research
Winter	• *Biol 200F Logic and Approaches to Scientific Discovery • *Biol 289 Practice of Science (Training in the Responsible Conduct of Research) • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Rotation Research • Selection of thesis laboratory • Submission of Mentor-Mentee Agreement
Spring	• *Biol 215 Applied Statistics in Biology • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks)

	• Academic progress report

Year 2	
Fall	• Advisory meeting with the MCD Advising Committee • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks) • Submission of an abstract on the thesis proposal for the Qualifying Exam • Selection of Qualifying Exam Committee • Formation of and meeting with Thesis Advisory Committee in Fall or Winter quarter
Winter	• *Biol 230 Grant Writing • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks) • Preparation of Qualifying Exam proposal
Spring	• *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks) • Submission of Qualifying Exam proposal to committee • Oral portion of the Qualifying Exam • Academic progress report • Resubmission of updated Mentor-Mentee Agreement

Year 3	
Fall	• Meeting with Thesis Advisory Committee at least once per year • Discussion of Individual Development Plan • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks)
Winter	• *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks)
Spring	• *Biol 291 MCD Monday Seminars

	• *Biol 292 MCD Friday Seminars • *Biol 297 Thesis Research • *Biol 280 Lab Meetings (or the equivalent in other tracks) • 3rd Year Seminar and Advancement to Candidacy • Academic Progress Report • Resubmission of updated Mentor-Mentee Agreement

Years 4 and 5	
Fall	• Meeting with Thesis Advisory Committee at least once per year • Discussion of Individual Development Plan • Participation in seminar/discussions for training in the Responsible Conduct of Research • *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 299 Thesis Research (after Advancing to Candidacy) • *Biol 280 Lab Meetings (or the equivalent in other tracks)
Winter	• *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 299 Thesis Research (after Advancing to Candidacy) • *Biol 280 Lab Meetings (or the equivalent in other tracks)
Spring	• *Biol 291 MCD Monday Seminars • *Biol 292 MCD Friday Seminars • *Biol 299 Thesis Research (after Advancing to Candidacy) • *Biol 280 Lab Meetings (or the equivalent in other tracks) • Academic Progress Report • Resubmission of updated Mentor-Mentee Agreement

Language Requirement

Proficiency in a foreign or computer language is not a requirement for the MCD Ph.D. program.

Teaching Requirement

Students are required to serve as teaching assistants (TAs) for a minimum of 2 quarters to earn their degree. Students should be aware that some faculty members require their students to TA more than twice in order to extend their graduate student support resources. Students are encouraged to TA for 2 different courses to obtain more experience and knowledge. TA duties should require no more than 20 hours a week of effort and will likely include weekly office hours and discussion sections, as well as grading, proctoring exams, and preparing course material for distribution (e.g. handouts, taping lectures, etc). Students are expected to remain actively engaged in their research while they are serving as a TA. Graduate students are not expected or permitted to write narrative evaluations, although their comments may be solicited and incorporated by the instructor. A Pedagogy in STEM class is offered to provide training in how to be an effective TA.

1st Year Student Orientation

To participate in orientation, newly admitted students are expected to arrive in September before classes begin. The campus provides a general orientation for new graduate students. This orientation is mandatory, as it provides useful general information that would be difficult to acquire elsewhere. The PBSE program provides an in-house orientation that includes biosafety training, computer resource orientation, and an introduction to our science library. A PBSE research conference and welcome dinner at the beginning of the quarter provide a great opportunity to meet faculty and continuing graduate students.

Advising Interviews

Students accepted into the Ph.D. program meet individually with members of the Graduate Advising Committee during the 1st week of Fall quarter (typically on orientation day) to review their academic background and plan a curriculum for the 1st year. In addition, students may meet individually with the Graduate Advising Committee during Winter and Spring quarters of their 1st year for informal feedback on their progress and to provide feedback to the Advising Committee on the program.

Coursework

All MCD students must take the graduate core curriculum (Biol 200A, 200E, 200F, 215) for a letter grade while Biol 288, 289, and Biol 230 can be taken as S/U. In addition to these courses, MCD Ph.D. students are required to take at least 2 additional graduate-level courses (not including Biol 280, 291, 292, 297, 299) prior to completion of the thesis. These may be taken within MCD Biology or, if appropriate, from offerings in other departments, such as Chemistry and Biochemistry, Microbiology and Environmental Toxicology, Biomolecular Engineering, and Computer Sciences. Graduate elective courses may be taken for Satisfactory/Unsatisfactory instead of a letter grade. Please see the Electives List for a list of pre-approved electives; the Graduate Advising Committee may approve other elective courses on a case-by-case basis. The Graduate Advising Committee will remind students of this requirement at the beginning of each year, and the MCD Graduate Coordinator will notify students of course offerings that fulfill the elective course requirement. When graduate students are evaluated on a Satisfactory/Unsatisfactory basis (for example, in Biol 291, 292, 297), a passing performance corresponds to a letter grade of B or better, in accordance with the grading policies of the graduate division.

Graduate Core Courses

Graduate core courses 200A, 200E, 200F, and 215 must be taken for a letter grade: A for excellent, B for satisfactory, and C, D, or F for unsatisfactory.

Biol 200A Critical Analysis of Scientific Literature

Offered in Fall quarter. The course initiates students into reading primary literature with a more critical eye. Students evaluate the goals and approaches of papers, interpret figures and findings, compare their interpretations to those of the authors, and evaluate the overall significance. Papers are selected to highlight both classic and current important investigations and to provide examples of both impeccable and flawed science. Performance is evaluated on the basis of participation in class discussions and written class assignments.

Biol 200E Experimental Design

This course will focus on key issues to consider when planning and designing experiments to test hypotheses, and how to design experiments to ensure reproducibility. Students will be taught how to design experiments that yield meaningful information, regardless of outcome, and best practices for designing experiments in a way that avoids bias. The course will cover such practical issues as appropriate controls, how to validate reagents, numbers and types of

replicates, variability, and how to rule out the effects of confounding variables. The course will use lectures, case studies, discussions, and student-designed projects to teach these core principles.

Biol 200F Logic and Approaches to Scientific Discovery
This course will be divided into several modules that explore topics in molecular biology, cell biology, developmental biology, stem cells, neurobiology, and genomics. In these modules, instructors will discuss with students gaps in our understanding of key questions and highlight methods and approaches that may be suitable to address these questions. The overarching goal is to provide students with samples of multidisciplinary tools and approaches and an appreciation of their strengths and limitations.

Biol 215 Applied Statistics in Biology
This course will teach students how to utilize statistics to advance their biological research questions. Students will be instructed in how to 1) identify statistical tests suitable to a given type of data, 2) determine appropriate sample size, 3) perform statistical tests (with basic programming in python or R), and 4) interpret the results, including significance and non-significance. The class will analyze real-world data sets (published and unpublished), then compare and discuss findings. The course will emphasize the role for the appropriate application of statistics in rigor and reproducibility.

Biol 288 Pedagogy in STEM
All MCD Ph.D. students serve as Teaching Assistants in 2 courses during their graduate training. This course is designed to prepare students for this role. The course highlights the different modes and styles of teaching and learning, helps trainees develop tools for student engagement, and provides sample exercises in group work and active learning. It also emphasizes the importance of equity and inclusion in the classroom, appropriate and inappropriate behavior, and professional ethics for teachers. The course also provides a pedagogical foundation for those interested in pursuing professional careers that involve teaching.

Biol 289 Practice of Science
This course covers a range of issues relevant to the responsible conduct of research, including keeping accurate and durable records, forms and consequences of fraud, plagiarism, and other forms of academic misconduct, honest reporting of data, authorship, collaboration and competition, what constitutes a publishable body of work, what determines order of authorship on publications, and humane and appropriate use of animals in research. This course provides students with a guide to being informed and responsible researchers at an early stage in their training.

Biol 230 Grant Writing
Introduces the fundamentals of grant writing in biomedical research, including best practices for presentation of data and communication of research findings. Students write and peer-edit most components of an NIH Ruth L. Kirschstein F31 predoctoral fellowship. The course is designed for students in their second year or later of graduate study.

Career Planning Course

MCD Biology designed a Career Planning course (Biol 290) for 3rd year graduate students. This course includes panel discussions on diverse careers in biotechnology, academia, and other areas and sessions with visitors who offer guidance on preparing for various career paths. This course is offered every other year. It is not required, but strongly recommended.

Seminars

The MCD Biology Department sponsors several regular weekly seminar courses. All graduate students are required to register and attend.

MCD Monday Seminars (Biol 291)
These are held weekly during Fall, Winter, and Spring quarters on Mondays between 12:00 and 1:05 PM. Speakers are usually invited from other institutions. Graduate students and postdocs are usually invited to meet with the invited speakers, schedules permitting.

MCD Friday Seminars (Biol 292)
These are held weekly during Fall, Winter, and Spring quarters on Fridays between 12:00 and 1:05 PM. Speakers are often from inside the program and include postdocs, 3rd year students, and graduating students.

Failing a Course and Academic Probation

Students who fail any course (*i.e.*, receives a C, D, F, or U grade) will be placed on academic probation. Students who fail any course, including an undergraduate course or rotation assignment or thesis research, must meet with the Graduate Advising Committee to review their progress. If their progress does not improve after an additional quarter, they will be asked to leave the program. Any failed graduate core course must be made up at the next available opportunity. Failure in that course for a second time results in the student having to leave the program.

Plagiarism - Definition, Guidelines, and Consequences

The UCSC Code of Student Conduct states: "Plagiarism is defined as the use of intellectual material produced by another person without acknowledging its source. This includes but is not limited to: 1) copying from the writings or works of another into one's academic assignment without attribution or submitting such works as if it were one's own; 2) using the views, opinions, or insights of another without acknowledgement; or 3) paraphrasing the characteristic or original phraseology, metaphor, or other literary device of another without proper attribution." In assignments for classes and when writing research articles and grants, students must express ideas in their own words and must give credit to the sources of the ideas.
If a case of plagiarism is discovered, the instructor will generally not give credit for the assignment, and the Department Chair and the Graduate Dean will be notified of the incident. The Graduate Advising Committee, the instructor, and the student will meet to ensure that the student understands the meaning and usual reasons for plagiarizing, what the correct approach should have been, and the consequences of future incidents. After a 2nd incident of plagiarism, the program will recommend to the Department Chair and the Graduate Dean that the student be expelled from graduate school.

Rotation Selection

The purpose of rotations is to provide students with a research experience in 3 different UCSC laboratories, and to allow both students and faculty to familiarize themselves with each other and determine whether they can establish a productive collaboration. Among the considerations for a student in choosing a lab in which to pursue a Ph.D. are excellent mentorship, a collegial and cooperative atmosphere in the lab, and interest in the research area and methodologies of the lab. Rotations may be with any of the MCD Core Faculty and approved MCD Affiliate Faculty listed on the MCD Training Faculty page of the PBSE site (https://pbse.ucsc.edu/mcd/mcd-faculty.html). Students may petition to rotate with faculty

not on that list - approval requires a favorable vote by the entire MCD Core faculty and requests of this sort should be made at least a month in advance.
Before the beginning of each rotation period, 1st year students submit to the Graduate Coordinator (Grace Kistler-Fair) a ranked list of 5 faculty names and optionally a brief explanation of why they are interested in those faculty. Before submitting their choices, students are encouraged to talk to faculty about whether the faculty will be taking rotation students and about potential projects. Rotation assignments are made by the Graduate Advising Committee. Faculty may not request that certain students rotate with them. Students are generally assigned their 1st choice, unless there are multiple students who list the same 1st choice and there is limited space in the lab. In that case, students within a track have priority to rotate with faculty in that track. Every effort is made to place students who do not get into their 1st choice lab in their 2nd choice lab. Students may not rotate in laboratories in which they have previously carried out work prior to entering the Ph.D. program, whether as an undergraduate, volunteer, or technician, unless special permission is granted. Students should enroll in Biol 297 Research Rotations on a Satisfactory/Unsatisfactory basis.
Faculty are not permitted to make any promises to students regarding permanent positions in their lab, officially or unofficially, until the end of all 3 rotations. Discussions regarding permanent positions in labs may begin after the final set of rotation presentations at the end of Winter quarter.
Occasionally, a student may not find a suitable laboratory at the end of 3 rotations. They may select a 4th laboratory for a Spring quarter rotation with the permission of the Graduate Advising Committee and the rotation advisor. Students who are unable to secure an advisor to sponsor their thesis research after four rotations are considered to be in unsatisfactory academic standing and must leave the program.

Summer Rotations Prior to Fall Quarter Enrollment

Graduate students may do a Summer rotation if they can identify a faculty member who can provide financial support during the summer. A Summer rotation may not be extended into a Fall rotation.

Rotation Talks and Posters

At the end of each 7-week rotation, 1st year students present brief talks or posters on the goals of and progress on their rotation projects. Direct admit Ph.D. students also present in 1 of the 3 sessions. Typically, each talk is 6-8 minutes with an additional 2 minutes for discussion; times may vary depending on class size.

Evaluation of Rotation Performance

Performance in each rotation is graded as Satisfactory/Unsatisfactory and summarized in a narrative evaluation by the rotation advisor. Performance is evaluated on the basis of research effort and progress, intellectual mastery of the project, and performance in the talk. Faculty should submit evaluations in a timely manner to the Graduate coordinator (Grace Kistler-Fair).

Selection of a Thesis Laboratory

No specific discussion of thesis laboratory choice is permitted between faculty and students until notification by the Graduate Advising Committee at the end of Winter quarter. When notified, students may approach faculty members to discuss the possibility of joining their group.
Students who are unable to secure a thesis laboratory should contact the Graduate Advising Committee to seek assistance in scheduling a possible 4th rotation. Students who are unable to secure an advisor to sponsor their thesis research after four rotations are considered to be in unsatisfactory academic standing and must leave the program. Students can also elect to join a laboratory in which they have not rotated, provided a faculty member is willing to accept them in their laboratory.

Changing Thesis Laboratories

Students should contact GAC to discuss the procedure and get approval from GAC. The new thesis advisor must be part of the PBSE program. GAC will consult with the new thesis advisor and highlight the requirements/responsibilities, as well as determine if adequate funding is available before approving the transfer of the student to the new lab.

Co-sponsorship of MCD Ph.D. Students

Co-sponsorship of MCD graduate students is not a formal option, regardless of whether one or both sponsors are members of the MCD graduate program. Exceptions to this rule may be requested in special cases in which collaborating faculty are needed to guide specific aspects of a thesis project. Such requests must be approved by the Graduate Advising Committee(s) of the relevant graduate program(s).

Faculty Responsibilities to Graduate Students

Rotation Students
While rotation students may work closely with one or more members of the laboratory, the primary responsibility for supervision lies with the faculty member or authorized Principal Investigator. The faculty advisor is encouraged to meet regularly with the rotation student to discuss their progress.

Graduate Students
Faculty mentors are expected to adhere to high standards of professionalism and collegiality; foster academic and research excellence in their labs; provide regular constructive advice to further the research progress and professional development of their trainees; encourage independent design and research by their students; teach them the skills needed to critically evaluate results; train students in effectively communicating results and findings; and aid their students in considering and preparing for different career paths. The faculty advisor is encouraged to meet regularly with their graduate students to discuss their progress.

Formal evaluation of a student may lead to an apparent conflict of interest for a faculty member. Such situations can include, but are not limited to, serving on the Qualifying Exam committee or Thesis Advisory Committee for the student of a spouse or significant other. In such situations where an apparent conflict of interest could occur, the faculty should recuse themselves.

Mentor-Mentee Agreements

MCD Biology requires PIs and student trainees to collaboratively develop a mentor-mentee agreement when a student selects a thesis lab and every year thereafter. The goals of these agreements are to explicitly define and align expectations for both the mentor and the mentee, provide a structured mechanism to discuss details about training and professional development, provide a shared reference point for regular progress reviews, empower students with more tools with which they can advocate for themselves, and ensure that all mentees are provided with a supportive research environment. A link to an agreement template can be found in Resources for Graduates and in Appendix A.

Individual Development Plans (IDPs)

Individual Development Plans (IDPs) are designed to help students reflect on their training and career goals, self-assess their skills and competencies, discuss their goals and competencies with their mentor, and develop short- and long-term training goals. The MCD program offers 3 different IDP templates. Students may use any of the 3 templates or customize one to better suit their particular goals. IDPs should be initiated and driven by the student. Students are required to fill out

at least 2 IDPs during their years in the graduate program: the 1st one in Years 1-3 and the 2nd one in Years 4-5. Students should send a copy of each IDP to the Graduate Coordinator (Grace Kistler-Fair).

Protocol to Address Graduate Students' Concerns with a Departmental Representative

MCD Biology has a protocol for graduate students to seek advice about and resolution of their concerns, including microaggressions and hate/bias incidents, sexual harassment or assault, mentorship issues, and health issues. For the departmental protocol, MCD graduate students who have concerns should initially consult with Grace Kistler-Fair, who will direct them to the appropriate person or office to contact for advice, give them a sense of what to expect, and maintain records of incidents. More details about this protocol are in Resources for Graduates and Appendix B. The PBSci Division aims to hire a lead advisor and assemble a team to advise students on their concerns outside of the department. Having both a departmental and a divisional resource will offer students alternative options for seeking advice.

Training in the Responsible Conduct of Research (RCR)

NIH recommends and our program requires two Responsible Conduct of Research (RCR) training experiences during Ph.D. training. The 1st RCR training experience in our program is our Responsible Conduct of Research course entitled Practice of Science (Biol 289), taken by all graduate students in their first year. The 2nd RCR training experience is participation of graduate students (usually in their 4th or 5th year) in 5 seminars and guided discussions led by UCSC and visiting faculty and expert staff on such topics as implicit bias, the ethics of working with stem cells, and dual-use research.

Qualifying Examination

The Qualifying Exam is taken by all Ph.D. students. The exam serves 2 major purposes. It provides an opportunity for students to do serious scholarship, deep thinking, and careful writing needed to develop, describe, and defend their thesis research. It also provides an opportunity for the examining committee to gauge each student's readiness to conduct thoughtful, rigorous, and independent research. The qualifying exam includes both an oral portion of the exam that must be taken in the Spring Quarter of the second year and a research seminar that must be presented to the members of the department in the Spring of the third year (See Third Year Talk/Advancement to Candidacy).
Students should begin preparing for the oral exam portion of their qualifying exam in the Spring quarter of their first year (immediately after they have selected a thesis laboratory). This provides the student with one year to prepare both the written proposal and the conceptual understanding of their thesis research. Because of the timing of future portions of the qualifying exam, the role both portions of the qualifying exam play in advancement to candidacy, and timelines defined by university guidelines (https://graddiv.ucsc.edu/current-students/academic-regulations/graduate-student-handbook/), the Oral exam portion of the qualifying exam should occur in the Spring quarter of their second year. However, students with a documented acute medical emergency should inform the Graduate Advising Committee to make relevant accommodations if a delay is necessary.
Early in Fall quarter, the Graduate Advising Committee meets with 2nd year students to discuss their progress, 2nd year coursework, and preparation for their Qualifying Exams.

Submission of an Abstract for the Oral Qualifying Examination

In preparation for the oral qualifying exam, students submit a short summary of their research proposal for review by the Graduate Advising Committee no later than the end of Fall quarter. The format and content of the abstract are described in detail in a Qualifying Exam document.

Selection of an Oral Qualifying Exam Committee

The Oral Exam committee is composed of 3 members of the MCD program plus 1 tenured faculty who is not a member of the MCD Biology department. The student's research advisor will not be a member of the exam committee. The inside members of the Qualifying Exam committee are assigned by the Graduate Advising Committee based on topic area of research and even distribution of assignments amongst faculty, making the oral qualifying exam committee distinct from the Thesis Advisory Committee (see Selection of a Thesis Advisory Committee). Once students are provided the names of their oral committee members, they must contact each member to *invite* them to serve on their committee.

The Chair of the Examination Committee must be a tenured faculty member from MCD. The outside member must be a tenured faculty member (either an Associate or Full Professor) from a different discipline/department from UCSC or a tenured member of the same or a different discipline from another campus. Tenured UCSC faculty from other departments who are affiliated with our MCD Graduate Program may serve as outside Qualifying Exam committee members. Scientists from a non-academic environment require a petition to GAC for exception.

GAC tries to include faculty with some expertise in the research proposed on the Oral exam committees. This is based solely on the Oral exam abstract that the student submits to GAC. GAC looks for the best fit possible given the available faculty in PBSE. However, it is virtually impossible for GAC to assemble committees where every member is an expert in a student's research area.

In addition, GAC strives to assemble a diverse committee, but are also very mindful of the need to not overburden specific faculty. GAC tries to ensure that the committee workload is equitably distributed amongst all the faculty members.

MCD GAC does not ask for permission from a thesis advisor or a student before assigning faculty members to the students' committee. Faculty should also not advocate for specific faculty members to be on Orals committees of specific students. Students are also not allowed to decide the faculty who will be on their Orals committees.

If an MCD student resides in a non-MCD lab, GAC does not make it a priority to place another faculty member from that student's department on their committee.

Written Proposal

Students submit a formal written proposal on their thesis research project to their Oral exam committee. The proposal is intended to provide practice in writing research proposals (for postdoctoral fellowships or other funding opportunities). The proposal (7 pages maximum not counting references) should state the question being addressed or the hypothesis/models being tested, summarize the factual and conceptual basis for the proposal, and briefly describe the experimental approaches. The project should address a significant research question and have a scope consistent with the normative time for Ph.D. training. Students are provided with examples of written proposals by the Graduate Advising Committee as a guide in the Fall quarter preceding their Oral Qualifying Exam. Students may consult with faculty members and others in preparing this proposal if they wish, but the writing must be entirely the student's.

Oral Qualifying Exam Timeline

Early October	Call for Qualifying Exam abstracts

Early December	Students must submit to the MCD Graduate Coordinator and the Graduate Advising Committee an abstract describing their thesis project
Early December	Students may submit to the MCD Graduate Coordinator and the Graduate Advising Committee a proposed Qualifying Exam committee
February	Students are provided names of 4 faculty members to invite to serve on their Oral exam committee
Early March	Students must schedule their Qualifying Exam (for the Spring quarter)
Spring quarter	Students submit their written proposals to their examining committee no later than 1 month prior to the exam date
End of Spring Quarter	Qualifying Exam must be completed

Oral Qualifying Exam Format

The committee meets for 5-10 minutes prior to the start of the examination to review the student's file and discuss any specific issues relevant to the examination. The student is called in and asked to give a short (~10 minute) presentation of the proposal - they are encouraged to use the whiteboard and are not allowed to bring notes, prepared overheads or PowerPoint presentations. They may be interrupted at any time during this presentation and asked to elaborate on or clarify points. The examination may also cover scientific areas other than those directly concerned with the research proposal. The examination typically takes 2-3 hours, after which the student is asked to leave the room. The committee discusses the performance and comes to a consensus. The student is invited back in and informed of the outcome of the examination. Students pass or fail - there are no conditional passes. The quality of the written proposal alone is not sufficient to merit passing. A passing performance requires demonstration of the ability to design and execute an independent research project and to orally defend ideas during the discussion with the examining committee. Students are generally expected to show proficiency in scientific literature relevant to their project, formulate and evaluate hypotheses, and design experiments to test those hypotheses.

If the student passes, they may nevertheless be advised to take further coursework. If the student fails, they must retake the examination with the same committee after further preparation and guidance during the following summer. If a student fails twice, they must leave the program. A terminal Master's degree may subsequently be awarded, provided that the student has satisfied the requirements for the Master's degree, including submission of a written thesis and a defense. A written summary of the Qualifying Exam outcome is prepared by the chair of the Qualifying Exam committee and edited and signed by all committee members. A copy is provided to the student and a copy placed in their file.

Leaves and Qualifying Examinations

Students must take the Qualifying Examination before the beginning of Fall quarter of their 3rd year, or they will not be allowed to register for courses or serve as a TA or GSR. The Graduate Division will be notified, and course enrollment will be denied. Any exceptions to this policy must be made in writing by the student's faculty sponsor (or MCD committee member) prior to the beginning of the Fall quarter.

If explicitly invited to do so by the examination committee, students who fail the Qualifying Examination have one quarter to produce a Master's thesis (on current research) or retake the examination. Either must be completed in the Fall quarter of the 3rd year in residence. An extension requires written permission from the Graduate Advising Committee.

Progress Toward a Thesis

Third Year Talk/Advancement to Candidacy

Advancement to candidacy occurs by the end of the 3rd year (9 quarters). In order to advance, students must give a research seminar (30 minute talk followed by questions) in an MCD seminar slot in the Spring Quarter of their third year as part of their Qualifying exam. The third year talk occurs after the student has passed their second year Oral exam. This talk should be attended by the student's Thesis Advisory Committee, and a brief written evaluation should be turned in by the student's thesis advisor to the MCD Biology Graduate Coordinator (Grace Kistler-Fair) indicating that the student has completed their third year talk. The talk is an opportunity for the student to demonstrate a good understanding of their project and background knowledge, the questions or hypotheses being tested, and research progress to date. Following this seminar, the student is considered to have advanced to candidacy. Following their advancement to candidacy, students have an additional 3 years (9 quarters) to complete their degree within normative time. (Note: International students are especially encouraged to advance to candidacy by the end of their 3rd year. If an international student does not advance to candidacy by the end of their 3rd year, their $5,034 non-residential tuition (NRT) will be assessed each quarter until they advance. After their 3rd year advancement, international students have an additional 3 years (9 quarters) to complete their degree within normative time without additional NRT assessment.

Selection of a Thesis Advisory Committee

Students should assemble and meet with their Thesis Advisory Committee by the end of their 2nd year. The Thesis Advisory Committee should be selected by the student in consultation with their thesis advisor. The committee is composed of the advisor plus at least 2 additional faculty members. At least one member of the committee must be an MCD Core faculty member. A majority of the members must be members of the UCSC Academic Senate. Outside members specializing in the thesis research are permitted, but are not mandatory.

Students must meet with their Thesis Advisory Committee at least once per year, starting in the 2nd year and until completion of the Ph.D. degree. The committee will provide continuing guidance throughout the development of the thesis, provide ongoing assessment of the student's progress, and evaluate the completed dissertation. In addition to evaluating a student's progress and providing input on the direction and scope of a student's thesis project, members of the thesis committee can provide an additional source of mentorship and advocacy during a student's Ph.D. training.

Note that the Thesis Advisory Committee and the Oral Qualifying Exam Committee are distinct committees, although they may have some overlapping members. The Thesis Advisory Committee helps guide the thesis project during the 2nd through final year that a student is in the graduate program, while the Oral Qualifying Exam Committee simply evaluates the student's ability to defend their proposal at the end of the 2nd year.

Graduate Student Academic Progress Reports

The Graduate Division requires an annual report of progress for every graduate student. A standardized form is supplied by the MCD Biology Graduate Coordinator (Grace Kistler-Fair), which is filled out and signed by the advisor and student. These forms are mandatory. The deadline is the end of spring quarter.

Target Time and Normative Time

The target time for the Ph.D. is 5 years. The normative time for the Ph.D. degree within the University of California is 6 years. Students who fail to complete their thesis within this time must request an extension from the Graduate Division. A written request signed by the student and advisor detailing the timetable to finish should be countersigned by the Graduate Advising Committee chair prior to submission to the Graduate Dean. Multiple extensions may be considered. If the Ph.D. degree is not awarded within 7 years from the date of advancement to candidacy, the student's candidacy will lapse and the student will be required to pass a new Qualifying Exam prior to submitting the dissertation or to undergo another formal review as directed by the student's department, and the result of this examination or review will be transmitted in writing to the Graduate Council (Academic Senate Regulation 18.6).

Preparation of the Thesis

When the student's advisor and Thesis Advisory Committee have agreed that the student has achieved a level of scholarship, independence, and research competence worthy of a Ph.D. and when the student has produced significant and publishable results that address an important question(s), the student may proceed with "writing up" according to the guidelines prescribed by the University Library and the Graduate Division. The outline of the thesis should be approved by the Thesis Advisory Committee prior to preparation of the thesis. The dissertation is of critical importance, because it reflects the candidate's ability to do independent research at a high level of scholarship and creativity. The dissertation should make clear that the candidate is familiar with and able to critically evaluate previous work done in his or her specialty field, and that the candidate has made a significant contribution to knowledge, at least part of which is of a quality and quantity worthy of publication. The publication goal of Ph.D. students in the MCD graduate program is at least one 1st-author or co-1st-author papers in peer-reviewed journals. The thesis, in a form already approved by the thesis advisor, should be provided to the committee no less than one month prior to the thesis defense date. Changes in the thesis suggested by any member of the committee must be incorporated into the thesis by the student prior to the thesis defense. The thesis defense should be an open seminar given in an MCD Seminar slot (Biol 291/292) or equivalent forum. The Graduate Coordinator (Grace Kistler-Fair) can assist in coordinating thesis defense dates with the Thesis Advisory Committee. After the seminar, the Thesis Advisory Committee will meet with the student to discuss any further changes to the thesis that are required. Once all changes have been made to the satisfaction of the Thesis Advisory Committee, the committee will sign the cover page of the final thesis. This will then be submitted to the University. Formal award of the Ph.D. is made by the Graduate Division after receipt of the signed thesis. Summer thesis defenses are discouraged, since no formal seminar series is in place during the summer.

The Graduate Division forms website has guidelines on thesis submission and formatting. Quick links to the guidelines are below:

- Dissertation and Thesis Guidelines - Graduate Council has established guidelines for uniformity in the physical format of the manuscript.
- Guide to Supplemental Material - How to include supplementary materials with your thesis or dissertation as separate attachments
- Dissertation and Thesis Checklist - A to-do list for graduating students

Applying to Graduate

Students close to completing their degree must file an Application for the Ph.D. Degree early in the quarter in which they wish to graduate (see the Academic and Administrative Calendar for deadlines). The application is the official notification to the Graduate Dean of the intent to graduate. This form is available on the Graduate Division website and should be

turned into the Graduate Adviser (Grace Kistler-Fair) prior to the deadline:
https://graddiv.ucsc.edu/current-students/applications-forms/index.html

Filing Fee

In some cases, it may be advisable for a student in good standing to apply for Filing Fee Status (FFS) instead of registering as a full-time student in their final quarter. Because an important condition of FFS is that most campus services, campus employment, and financial aid are unavailable, this option is most suitable for students who have already obtained a job elsewhere or have some other means of support besides campus employment. In addition, students must be officially registered or on approved leave of absence the quarter before applying for Filing Fee Status. A student may go on Filing Fee Status only once. An application form can be downloaded from the Graduate Division website: https://graddiv.ucsc.edu/current-students/applications-forms/index.html

Summary of Formal Ph.D. Requirements

1. All students must take the core curriculum (Biol 200A, 200E, 200F, 215, 288, 289, and Biol 230). Some may additionally take Biol 100A Biochemistry, Biol 115 Eukaryotic Molecular Biology, and/or Biol 105 Genetics their 1st year. Enrollment in Biochemistry, Molecular Biology, and/or Genetics is recommended if a student has not had a course in that subject in the past 2-3 years, or if they earned a C or poorer in the course.
2. Students must additionally take 2 approved graduate electives prior to submission of the thesis. These need not be MCD Biology courses. Students must also complete a 2nd training in the Responsible Conduct of Research in their 4th or 5th year.
   Following is a list of approved graduate electives. Students may petition the Graduate Advising Committee for approval of courses not included below.

Approved Graduate Electives List	
Content-Based Electives	
BIOL 201	RNA Processing
BIOL 203	Ribosomes and Translation
BIOL 204	Chromatin and Transcription
BIOL 205	Epigenetics
BIOL 206	Introduction to Stem Cell Biology
BIOL 206L	Current Protocols in Stem Cell Biology
BIOL 208	Cellular Signaling Mechanisms
BIOL 214	Advances in Cancer Biology
BIOL 215 [3]	Applied Statistics for Molecular, Cell, and Developmental Biology
BIOL 217	Influence of Environment and Experience on Brain Development

BIOL 218	CRISPR/Cas Technologies
BIOL 226	Advanced Neuroscience
BIOL 228	Developmental Neurobiology
BME 110	Computational Biology Tools
BME 130	Genomes
BME 160	Research Programming in the Life Sciences
BME 163/263	Applied Analysis and Visualization of Scientific Data
BME 205	Bioinformatics: Models and Algorithms
BME 222	Applied Biotechnology: Engineering Immunotherapeutic Drugs
BME 229	Protein and Cell Engineering
BME 230A	Intro to Computational Genomics (Prereq: BME 205)
BME 230B	Advanced Computational Genomics (Prereqs: BME 205, BME 230A)
BME 237	Applied RNA Bioinformatics
BME 272	Precision Medicine
CHEM 200A	Advanced Biochem: Biophysical Methods
CHEM 200B	Advanced Biochem: Protein Structure and Function
CHEM 200C	Advanced Biochem: Structure and Function of Nucleic Acids
ECE 236 [2]	Special Topics in Electrical Engineering "Optics and Microscopy"
ECE 237 [2]	Image Process and Reconstruction
METX 202	Cellular and Molecular Toxicology
METX 206A	Advanced Microbiology
METX 210	Bacterial Pathogenesis
METX 238	Pathogenesis: Molecular Mechanisms of Disease
STAT 108 [1]	Linear Regression
STAT 202 [1]	Linear Models
STAT 205B [1]	Intermediate Classical Interference

STAT 208 [1]	Linear Statistical Models
STAT 266A [1]	Data Visualization and Statistical Programming in R
Skills-Based Electives (Students may only count 1 of the following courses towards their graduate electives)	
BIOL 220	STEM Outreach
BIOL 230 [3]	Grant Writing
BIOL 290	Career Planning
BME 275	Entrepreneurship in Biotechnology
CHEM 230 [3]	Grant Writing
PDP	Training in teaching offered by the Institute for Scientist and Engineer Educators (ISEE)
[1] Students who have had no or very little Statistics should audit or take STAT 7 (5 credits) and perhaps also STAT 7L (2 credits) to learn the basics, before taking one of the graduate level courses.	
[2] Students may count either ECE 236 or ECE 237, but not both, toward their advanced graduate electives.	
[3] Biol 215, Chem 230, and Biol 230 may only count as electives to PhD students who matriculated prior to fall 2020.	

3. All students rotate in at least 3 different research laboratories during the 1st 2 quarters of their 1st year. This does not apply to “direct admit” Ph.D. students, who are not required to rotate.
4. All students present a rotation talk or poster at the end of each rotation.
5. Because teaching experience is a requirement for the Ph.D., all students serve as teaching assistants for a minimum of 2 quarters during the course of their graduate studies, as part of their academic training. This may include 1 or more quarters of TAship during the 1st year.
6. In order to remain in good academic standing, students must maintain a normal course load. MCD Biology students are expected to work full-time toward their degrees. This means enrollment in at least 15 units of credit each quarter.
7. Faculty submit evaluations for each course for all students. Annual academic progress reports on each graduate student are requested by the Graduate Coordinator (Grace Kistler-Fair) with academic progress to be reported to the Graduate Division. Failure to maintain satisfactory status may result in a recommendation from the MCD Biology department to the Dean of the Graduate Division for dismissal from the program.
8. Students take the Oral part of their Qualifying Examination at the end of their 2nd year.
9. If a student does not pass the Qualifying Examination, the examination must be rescheduled within one quarter. A student can retake the examination only once. A second failure will result in dismissal from the program.
10. All students must give a public research seminar in the MCD Seminar series (Biol 291/292) during their 3rd year. After this seminar, students will advance to candidacy.
11. All students must meet with their Thesis Advisory Committee each year, starting in the 2nd year until completion of the thesis.
12. A formal public thesis defense is required and must be scheduled and advertised so that members of the department are able to attend.

13. Students must submit the PI-approved doctoral thesis to the Thesis Advisory Committee at least 1 month before presenting a defense seminar. Tentative approval of the written thesis by the committee is required prior to the thesis defense seminar. All members of the Thesis Advisory Committee should attend the seminar. The candidate must be prepared to defend the work to the satisfaction of the committee before the thesis is accepted.
14. Before the thesis is accepted and signed by the Thesis Advisory Committee, at least 1 chapter should be submitted as a paper to a refereed journal for publication. Delays in refereeing, acceptance, and printing may delay publication of the paper until after the doctoral degree has been granted.
15. The Thesis Advisory Committee signs the cover page of the student's dissertation only after the research has been presented in a public seminar, defended, and the thesis remedied as needed.

Other MCD Biology Program Policies

Graduate Division forms are available from The Graduate Division's website. All forms, applications, etc. in connection with the Graduate Division must be routed through the MCD Biology Graduate Coordinator (Grace Kistler-Fair).

Completion of Previous Degrees

1. No student may enroll as a graduate student at UCSC until a Bachelor's degree has been completed.
2. Newly accepted students who are currently completing another graduate degree normally will not be permitted to enroll in the MCD Graduate Program until the previous degree has been completed (or abandoned).
3. Under special circumstances, the Graduate Advising Committee may permit a student to complete a previous degree after entering the Ph.D. Program. Approval must be obtained from the Graduate Advising Committee before enrolling for the 1st time, along with a timetable for completion. Failure to follow that timetable may be grounds for dismissal from the MCD Ph.D. Program on the basis of inadequate progress.

Leaves of Absence

1. Students are expected to engage in their graduate student activities continuously (including the summer) from the time of admission until completion of the Ph.D. thesis. Common reasons to request a leave of absence include maternity/paternity leave, medical conditions and mental health care.
2. A leave must be authorized in advance. Students must obtain written permission, first from their advisor, then from the Graduate Advising Committee.
3. A request for a leave of absence must be submitted in writing to the Graduate Advising Committee and must include a justification. The Graduate Dean will ultimately approve the leave.
4. Time spent on leave continues to count toward all departmental and University time requirements, including, but not limited to, passing the Qualifying Exam, the 3-year limit after advancement to candidacy, and the 6-year limit on normative time for completion of graduate work at UCSC.
5. Making use of an approved leave of absence will not jeopardize maintaining the satisfactory academic progress that must be reported annually to the Graduate Dean.
6. If a leave of absence is granted, it is the responsibility of the student to be familiar with all relevant departmental and University regulations, and to file any necessary paperwork with both the MCD Biology Office and the Graduate Division. Please consult with the MCD Biology Graduate Coordinator (Grace Kistler-Fair).
7. International students have additional responsibilities to meet restrictions imposed by their visas and must also have approval from International Services (istudent@ucsc.edu).
8. Re-admission to the program after a leave is contingent upon satisfying any conditions set by the department or the Graduate Dean.

For full guidance on the leave of absence/readmission policy, please refer to the Graduate Division Student Handbook:
https://graddiv.ucsc.edu/current-students/academic-regulations/graduate-student-handbook/section-ten.html

Medical Leaves

Graduate student ASEs (Academic Student Employees) such as TAs and GSRs are entitled to medical leave as outlined in the academic personnel manual. The following website outlines the leave policy for ASEs:
https://apo.ucsc.edu/policy/capm/700.411.html#i

In order to ensure proper coverage for leaves, ASEs are expected to contact their faculty supervisor to request leave as soon as the need for the leave becomes known, but not less than one working day in advance of the start of the leave unless the leave is an unanticipated personal, family illness or bereavement leave.

If a student is a non-ASE in a particular quarter (e.g. on a fellowship instead of TA/GSR), please contact the MCD Graduate Program Coordinator (Grace Kistler-Fair) if you would like to request a medical leave. The department, student, and PI will need to confirm the leave process depending on the leave policy of the funding source.

Normal Course Loads

1. MCD Biology graduate students are expected to work full-time towards their degrees and, therefore, students should enroll for 15 units of credit each quarter and work full-time in their research lab.
2. Once formal upper-division and graduate courses recommended by the student's Thesis Advisory Committee have been completed, it is expected that the student will normally enroll in 15 units of Biol 297 Thesis Research each quarter (unless taking a 5 unit graduate elective) plus 2 units of Biol 280 if this is offered by the thesis advisor. Students who are advanced to candidacy will enroll in Biol 299 Thesis Research.
3. Alterations in research loads must be approved in advance by the Graduate Advising Committee.

Ph.D. Dissertation Defense

The MCD Graduate Program requires a formal thesis defense before awarding the Ph.D. degree. This requirement must be satisfied before the Thesis Advisory Committee signs the cover page and other forms indicating that the thesis has been accepted. The defense takes place after all members of the committee have approved the written thesis. The defense must be a public seminar, attended by a majority of the candidate's Thesis Advisory Committee, in which the candidate formally presents the substance of the thesis. After the seminar, the public must have sufficient opportunity to question the candidate. The Thesis Advisory Committee may then meet in private with the candidate for further questions, before determining whether the candidate's thesis is accepted or rejected, or whether any problems need to be resolved. If both the thesis and the defense are acceptable, the cover page and necessary forms will be signed by the committee members, and all departmental requirements pertaining to the Ph.D. thesis defense will have been satisfied.

Expected Timetable for the Ph.D. Degree

The MCD Ph.D. was conceived as a 5-year program. Under normal circumstances, students should plan to follow this timetable:
1. Enter at the beginning of the Fall quarter.
2. Complete core and background courses in the 1st 2 years.
3. Take the Qualifying Examination at the end of the 2nd year.

4. Present a public seminar on their thesis research and advance to candidacy by the end of the 3rd year.
5. Complete research and finish writing the thesis by the end of the 5th year.

Deviations from this pattern require good justification. Deviations must be approved by the student's Thesis Advisory Committee and by the Graduate Advising Committee. Approval is not automatic and should be sought as soon as the need is anticipated.

Direct Admission into the MCD Graduate Program

Most students admitted to the graduate program do research rotations and then select a thesis lab. The direct admit program is designed to allow direct admission of qualified students into faculty labs. Students who have already initiated a research project in a particular lab may apply to join that lab directly. In addition, qualified international students who cannot be supported by the rotation program can be directly admitted by investigators with sufficient financial resources. All admissions decisions regarding direct admit students are made by the Departmental Graduate Admissions Committee; individual faculty may not make offers of admission to applicants without first consulting with the Admissions Committee.

Faculty sponsors will be allowed to accept Ph.D. students directly into their labs if the Graduate Admissions Committee is satisfied that the candidate's file has sufficient academic merit for admission. All direct admits must apply via the usual application procedures, and must fulfill all Ph.D. requirements except research rotations (i.e. core courses, 2 elective courses, and 2 quarters of teaching assistantships). Direct admit students also give a rotation talk or present in a poster session in their 1st year.

The faculty sponsor (not the department) will be responsible for full support of the direct admit student. In the event a direct admit student needs to find a different lab, the student will be responsible for finding a new faculty sponsor in order to remain in the program. The new faculty sponsor will assume responsibility for funding the student.

Master's (M.S.) Program in MCD Biology

This policy statement supersedes any previous pathways to the degree in MCD Biology. The purpose of the Master's Program in MCD Biology is to allow UCSC students to extend and complete a senior thesis project for additional credit or to allow a student the option of committing to a short program in an area where they may not wish to or need to pursue a Ph.D. A Master's of Science (M.S.) degree will be awarded.

Application Procedure and Support

All applicants shall apply through the Graduate Division via the standard application for graduate studies in MCD Biology. The application must be accompanied by transcripts and letters of recommendation. As for Ph.D. applications, GRE scores are no longer required or considered. All students admitted to the Master's Program should be of an academic standard comparable to that for incoming Ph.D. students as judged by a combination of the above factors. It has not been, nor is it intended to be, a "2nd class" graduate program. Acceptance into the program requires a faculty sponsor from MCD Biology before submitting an application, and students are expected to include a letter from their faculty sponsor detailing such support in their application. There is no formal commitment of financial support from the Department of MCD Biology, nor is the faculty sponsor required to provide financial support. Students in the Master's Program are

normally eligible for teaching assistantships and GSRships, although neither is guaranteed. If the faculty sponsor appoints a student as a GSR during the academic year, it should be at the same level of support as for a Ph.D. student. It is expected that faculty will provide GSR support for Master's students during the summer months.

Master's Program Requirements

The program lasts for 2 years. A 3rd year may be requested but requires approval by the Graduate Advising Committee and the Graduate Division. The Master's Thesis Advisory Committee shall comprise the advisor and at least 2 other members of the MCD graduate program. The committee should be formed soon after the student joins the research program. The Thesis Advisory Committee should meet at least once a year and prior to the submission of the written thesis. Students should take Biol 200A in the 1st year. Enrollment and attendance in MCD Seminars (Biol 291 and Biol 292) are required each quarter. Students must also complete Biol 288 Pedagogy in STEM, Biol 289 Responsible Conduct of Research, and 2 advanced graduate electives. Advanced graduate electives may include Biol 200E, Biol 200F, Biol 215, or any of the courses listed above as advanced courses for the Ph.D. Master's students do not do research rotations, but instead continue to work in the laboratory of the sponsoring faculty member.

For graduation, the student must:

1. Pass all course work assigned.
2. Submit a written thesis describing their work. The research should be of sufficient quality to merit publication, but a peer-reviewed publication is not required for graduation. The thesis should include an introduction and discussion, in addition to chapters describing results. Students can include data from jointly authored papers in the results chapters provided that their contributions are substantial and clearly spelled out. The thesis must be completely written by the student.
3. Give an oral thesis defense after timely submission of the thesis to the Thesis Advisory Committee. The committee will approve the thesis when all requirements and requested changes have been met.

Master's Students Wishing to Pursue the Ph.D. Track

Master's students who wish to transfer to the Ph.D. track should first get approval from their faculty advisor, then submit a request to the Graduate Advising Committee to transfer from the Master's track to the Ph.D. track. Students should provide an additional letter of recommendation (from their faculty advisor). The Graduate Advising Committee will confer with the Graduate Admissions Committee and may confer with instructors of the core courses already taken by the student before they make their decision. If the transfer is approved, students must complete the requirements for the Ph.D., including taking all graduate core courses and 2 advanced graduate electives, take the Oral Qualifying Exam, and give a research seminar to advance to candidacy. Once transferred to the Ph.D. program, students give a rotation talk with 1st year rotation students.

Master's students who want to rotate in different laboratories before entering the Ph.D. program will need to apply for admission to the Ph.D. program during the regular application cycle (Oct. 1-Dec. 1).

Checklist for Graduation

1. Complete and file an application for degree form for the quarter of graduation: https://graddiv.ucsc.edu/current-students/applications-forms/index.html
2. Schedule a dissertation seminar with the MCD Biology Graduate Coordinator (Grace Kistler-Fair).
3. At least 3 months before graduation, meet with the Thesis Advisory Committee to determine thesis content and format.
4. At least 1 month before the thesis defense, give all Thesis Advisory Committee members a copy of the thesis for review.

5. Two weeks before the thesis defense, meet with the Thesis Advisory Committee again for final feedback.

Resources for Graduates

Please see below for campus resources available to all graduate students:. If students have questions or concerns about the relevant resource, they can directly contact Grace-Kistler Fair (see Protocol to Address Graduate Students' Concerns with a Departmental Representative).

- **Disability Resource Center (DRC):** https://drc.ucsc.edu
- **Food Access Resources:** https://deanofstudents.ucsc.edu/slug-support/gfi/resources.html
- **Slug Support System:** https://deanofstudents.ucsc.edu/slug-support/program/index.html
- **Problem and Complaint Resolution:** https://ombuds.ucsc.edu/graduate/index.html
- **Campus Conflict Resolution:** https://conflictresolution.ucsc.edu/
- **Report Hate:** https://reporthate.ucsc.edu/
    - **Report hate/bias form:** https://ucsc-advocate.symplicity.com/care_report/index.php/pid503996?
- **Title IX Office:** https://titleix.ucsc.edu
    - **Title IX Anonymous reporting form:** https://ucsc-gme-advocate.symplicity.com/public_report/index.php/pid249182?
    - **Title IX Resources and Options Brochure:** https://titleix.ucsc.edu/resources/printable-resourcesandoptions-4page.pdf
- **Campus Advocacy Resources and Education (CARE):** https://care.ucsc.edu/index.html
    - This is a **confidential** resource to discuss sexual harassment and assault
- **Office for Diversity Equity and Inclusion (ODEI):** https://diversity.ucsc.edu/index.html
- **Counseling and Psychological Services (CAPS):** https://caps.ucsc.edu/index.html
- **Student Health Outreach and Promotion (SHOP):** https://shop.ucsc.edu/
- **Equal Employment Opportunity/Affirmative Action (EEO/AA):** https://diversity.ucsc.edu/eeo-aa/index.html
- **Resource Centers:** https://resourcecenters.ucsc.edu/
- **Center of Innovative Teaching and Learning:** https://citl.ucsc.edu/
- **Dean of Students Office:** https://deanofstudents.ucsc.edu/
- **Writing Resources for Grads:** https://graddiv.ucsc.edu/grad-horizons/writing-support.html
- **Financial Aid Emergency Advance Program:** https://financialaid.ucsc.edu/types-of-aid/loans/ucsc-financial-aid-emergency-advance-program.html
- **Types of emergency aid:** https://financialaid.ucsc.edu/types-of-aid/emergency-aid.html
- **Graduate Division:** https://graddiv.ucsc.edu/index.html
- **Graduate Division Student Handbook:** https://graddiv.ucsc.edu/current-students/academic-regulations/graduate-student-handbook/index.html
- **Graduate Division Enhanced Support Programs:** https://graddiv.ucsc.edu/enhanced-programs/index.html

Appendix A: MCD Mentor/Mentee Agreement Templates

Updated: Aug. 2021

MCD Mentor-Mentee Agreement Template – PhD Program

This document provides an adaptable structure and set of topics to discuss when setting up a mentor-mentee relationship. The graduate student and faculty mentor should review their responses to these questions and work together to establish guidelines for their professional relationship, with the goal of supporting the graduate student to succeed in their academic program and make progress toward their career goals. This document should be developed collaboratively and revisited every year. It should be seen as a complement to the recommended Individual Development Plans (IDPs).

Mentee: _____

Mentor: _____

Dates of previous discussions and documents: _____

Date of most recent discussion and document: _____

Key topics to discuss and document:

1. Shared goals (*List the goals of this working relationship. What do the mentor and mentee hope to get out of working together? Specific research project goals can also be listed.*)

2. Approaches/strategies/steps to achieving the listed goals (*What do the mentor and mentee need to do to meet the above goals? Who is responsible for what actions?*)

   A. Mentor's role/tasks:
   B. Mentee's role/tasks:

3. What will be the meeting practices (*frequency, duration, location for meetings*)? How will the meetings be documented (*google doc, emails*)?

4. Communication etiquette
   A. How will the mentor and mentee communicate (*slack, emails, text*)? When can and should a mentee contact the mentor (*during emergencies, any time*)? What are the expectations for replying (*if contact is late at night, on weekends, etc.*)?
   B. If the mentee is not meeting expectations or needs more help or guidance or if the mentor is not providing adequate help and guidance, how should that be discussed?
   C. Confidentiality agreement (*Ensure that the mentor and mentee are on the same page in terms of keeping meeting discussions in confidence. If there are any sensitive issues that either feel should be discussed or are off-limits for discussion, those may be named. Be aware that faculty are obligate reporters for Title IX and other topics, and engagement with such topics should occur with this knowledge.*)
   D. Addressing conflict in the workplace (*What will the plan be if conflicts arise between the mentor and mentee or between members of the lab? Who should be involved in resolving conflicts and following what procedure?*)
   E. Relationship adjustment or termination (*Determine the guidelines for adjusting or ending the mentor-mentee relationship if needed. For example, what are some of the factors that might*

contribute to this decision [e.g. change of research field or dissertation topic]? By what process can the mentor-mentee relationship adapt if needed?)

5. What is the funding situation in the lab?
   A. Do graduate students in the lab generally need to TA more than the required 2 times? Are they supported during summers, when TAships are limited? When students TA, will the PI top up the TA stipend to the GSR level?
   B. Are there particular expectations about graduate students applying for fellowships? What is the mentor's philosophy about helping them write fellowship drafts?

6. How many years is the degree expected to take?
   A. Discuss the requirements for finishing a PhD and the rough timeline and expectations of the primary milestones (*annual Thesis Advisory Committee meetings starting in Year 2, the Qualifying Exam at the end of Year 2, the 3rd Year Talk, and the Dissertation defense*).
   B. What is the goal for publications during the training period? What is the mentor's philosophy about helping mentees learn to write papers and about co-authorship and author order?
   C. What are the expectations for moving forward to thesis writing and graduation (*one first-author paper, multiple papers, will the graduate student have to TA during the writing process*)?

7. Are there particular expectations about time spent in the lab per week? Does a graduate student have the flexibility to determine their own hours? What about evenings and weekends?
   A. What about when a student is TAing?
   B. Is there a policy on remote work?
   C. What about taking vacation time (*duration, time of year*)?
   D. Is there a policy about navigating physical or mental health issues (*sick time, mental health days, etc.*)?

8. The department suggests having this conversation at least once per year. Would it be helpful to have it more often than that?

Additional topics to discuss and document:

The department recommends doing an Individual Development Plan (IDP) every year, to reflect on training and career goals, assess skills and competencies, discuss goals and competencies, and develop short- and long-term training goals.

What is the goal for presenting research at conferences? What is the mentor's philosophy about helping mentees learn to give oral and poster presentations?

Are there particular expectations about contributing to the general running of the lab (*e.g. making common stock solutions and placing orders for lab reagents*)?

Are there particular expectations about mentoring undergraduate researchers/rotation students/early-stage graduate students in the lab?

What topics might mentees seek mentor guidance on beyond their courses and dissertation (*teaching opportunities, career guidance, and work-life balance*)?

What is the mentee's ideal future career post-PhD? How can the mentor assist them in reaching this goal? Who else beyond the thesis advisor might be an important mentor(s)?

MCD Mentor-Mentee Agreement Template – MS Program

This document provides an adaptable structure and set of topics to discuss when setting up a mentor-mentee relationship. The graduate student and faculty mentor should review their responses to these questions and work together to establish guidelines for their professional relationship, with the goal of supporting the graduate student to succeed in their academic program and make progress toward their career goals. This document should be developed collaboratively and revisited every year. It should be seen as a complement to the recommended Individual Development Plans (IDPs).

Mentee: _____

Mentor: _____

Dates of previous discussions and documents: _____

Date of most recent discussion and document: _____

Key topics to discuss and document:

1. Shared goals (*List the goals of this working relationship. What do the mentor and mentee hope to get out of working together? Specific research project goals can also be listed.*)

2. Approaches/strategies/steps to achieving the listed goals (*What do the mentor and mentee need to do to meet the above goals? Who is responsible for what actions?*)

1. Mentor's role/tasks:
2. Mentee's role/tasks:

3. What will be the meeting practices (*frequency, duration, location for meetings*)? How will the meetings be documented (*google doc, emails*)?

4. Communication etiquette
    1. How will the mentor and mentee communicate (*slack, emails, text*)? When can and should a mentee contact the mentor (*during emergencies, any time*)? What are the expectations for replying (*if contact is late at night, on weekends, etc.*)?
    2. If the mentee is not meeting expectations or needs more help or guidance or if the mentor is not providing adequate help and guidance, how should that be discussed?
    3. Confidentiality agreement (*Ensure that the mentor and mentee are on the same page in terms of keeping meeting discussions in confidence. If there are any sensitive issues that either feel should be discussed or are off-limits for discussion, those may be named. Be aware that faculty are obligate reporters for Title IX and other topics, and engagement with such topics should occur with this knowledge.*)
    4. Addressing conflict in the workplace (*What will the plan be if conflicts arise between the mentor and mentee or between members of the lab? Who should be involved in resolving conflicts and following what procedure?*)
    5. Relationship adjustment or termination (*Determine the guidelines for adjusting or ending the mentor-mentee relationship if needed. For example, what are some of the factors that might contribute to this decision [e.g. change of research field or dissertation topic]? By what process can the mentor-mentee relationship adapt if needed?*)

5. What is the funding situation in the lab?

A. Do master's students in the lab need to TA? Are they supported during summers when TAships are limited?

B. Are there particular expectations about master's students applying for fellowships? What is the mentor's philosophy about helping them write fellowship drafts?

6. How many years is the degree expected to take?

1. Discuss the requirements for finishing a master's degree and the rough timeline and expectations of the primary milestones (*annual Thesis Advisory Committee meetings, completion of required course work, and the thesis defense*).
2. What is the goal for publications during the training period? What is the mentor's philosophy about helping mentees learn to write papers and about co-authorship and author order?
3. What are the expectations for moving forward to thesis writing and graduation)? What is considered a body of research to complete the master's degree?
4. Under what circumstances should a third year of MS training be considered? When should a third year be requested for approval by GAC and the Graduate Division?

7. If the master's student is considering transferring to the PhD track, when and how should this conversation take place?

A. What are the requirements for transferring to the PhD track and continuing research in the same lab?

B. Discuss the department timeline requirements for the oral qualifying exam and the 3rd year talk.

C. How will the expectations of the mentor and of the mentee change after transferring to the PhD track?

D. Will there be new or additional responsibilities of the student?

8. Are there particular expectations about time spent in the lab per week? Does a graduate student have the flexibility to determine their own hours? What about evenings and weekends?

1. What about when a student is TAing?
2. Is there a policy on remote work?
3. What about taking vacation time (*duration, time of year*)?
4. Is there a policy about navigating physical or mental health issues (*sick time, mental health days, etc.*)?

9. The department suggests having this conversation at least once per year. Would it be helpful to have it more often than that?

Additional topics to discuss and document:

The department recommends doing an Individual Development Plan (IDP) every year, to reflect on training and career goals, assess skills and competencies, discuss goals and competencies, and develop short- and long-term training goals.

What is the goal for presenting research at conferences? What is the mentor's philosophy about helping mentees learn to give oral and poster presentations?

Are there particular expectations about contributing to the general running of the lab (*e.g. making common stock solutions and placing orders for lab reagents*)?

Are there particular expectations about mentoring undergraduate researchers/rotation students/early-stage graduate students in the lab?

What topics might mentees seek mentor guidance on beyond their courses and dissertation (*teaching opportunities, career guidance, and work-life balance*)?

What is the mentee's ideal future career post-MS degree? How can the mentor assist them in reaching this goal? Who else beyond the thesis advisor might be an important mentor(s)?

Appendix B: Protocol to Address Graduate Students' Concerns

Updated: Aug. 2021

MCD Biology recently adopted a protocol for graduate students to seek advice about and resolution of their concerns, including microaggressions and hate/bias incidents, sexual harassment or assault, mentorship issues, and health issues. The departmental protocol is posted on the MCD web page and described in the MCD Graduate Student Handbook. The PBSci division aims to hire a lead advisor and assemble a team to advise students on their concerns outside of the department. Having both a departmental and a divisional resource will offer students alternative options for seeking advice.

For the departmental protocol, MCD graduate students who have concerns should initially consult with Grace Kistler-Fair, who is a trusted, non-faculty member of MCD. She will direct students to the appropriate person or office to contact for advice, as detailed below, give students a sense of what to expect, and maintain records of incidents. The latter will allow repeated incidents involving the same offenders to be addressed.

- **For microaggressions and hate/bias incidents involving faculty, students, or staff**, students should consult with the Office of Diversity, Equity, and Inclusion (ODEI). Students can email that office for an initial consult on whether a hurtful comment or action merits a hate/bias report. A member of the ODEI team can advise them on filing a hate/bias report (if warranted) and on seeking mediation or restorative justice (if they want that).

  Contact information:
  Office of Diversity, Equity, and Inclusion (ODEI)
  https://diversity.ucsc.edu/
  odei@ucsc.edu
  831-459-1590
  Kerr Hall 249

- **For sexual harassment or assault incidents involving faculty, students, or staff**, students should contact the CARE Office or the Title IX Office for consultation and advice. The CARE Office provides nonjudgmental and confidential support and resources for survivors of sexual assault, dating/domestic violence, and/or stalking, and their significant others. The Title IX Office

is committed to safety, fairness, trauma-informed practices, and due process and can work with students on pursuing mediation or restorative justice (if they want that).

Contact information:
CARE (Campus Advocacy Resources & Education) Office
https://care.ucsc.edu/
care@ucsc.edu
831-502-2273

Title IX Office
https://titleix.ucsc.edu/
titleix@ucsc.edu
831-459-2462
Kerr Hall 105
Online reporting form: https://uctitleix.i-sight.com/portal

- **For mentorship issues**, students may consult with one of the individuals below based on their preferences.
    - Grant Hartzog, Chair of MCD Biology
      hartzog@ucsc.edu, Sinsheimer 349
    - Rohinton Kamakaka, Chair of the MCD Graduate Advising Committee
      rohinton@ucsc.edu, Sinsheimer 249
    - A member(s) of their thesis advisory committee
    - Another trusted faculty member
    - Yuli Ortega, STEM Diversity Programs Director
      yuli@ucsc.edu, Jack Baskin Engineering 135
    - Christina Ravelo, Associate Dean in PBSci for Diversity, Equity, and Inclusion
      acr@ucsc.edu
    - Stephanie Casher, Assistant Dean in Graduate Division
      scasher@ucsc.edu, Kerr 290
    - Nancy Heischman, Director of Campus Conflict Resolution Services
      https://conflictresolution.ucsc.edu/
      nheischm@ucsc.edu, Kerr Hall 107
    - The PBSci divisional advisor, once one is hired

- **For health issues,** students who need DRC (Disability Resource Center) accommodations (such as a delay or altered form of their Qualifying Exam) or who need to take a leave of absence should consult with the MCD Graduate Advising Committee or with the DRC.

  Contact information:
  Rohinton Kamakaka, Chair of the MCD Graduate Advising Committee
  rohinton@ucsc.edu
  Sinsheimer 249

  Disability Resource Center (DRC)
  https://drc.ucsc.edu/
  drc@ucsc.edu
  831-459-2089
  125 Hahn Student Services

MCD takes seriously all issues and concerns that graduate students face. So long as students give their permission, Grace should be informed of all MCD graduate student incidents and concerns, so that she can maintain records. Such records, which will be securely stored to protect students' privacy, will allow any patterns of repeated inappropriate behavior by MCD members to be identified and dealt with.

Appendix C: UCSC Appealing Academic Judgments

Revisions approved by Graduate Council on May 21, 2009, and effective July 1, 2009

Students have the right to appeal various institutional judgments concerning their academic standing at UC Santa Cruz including dismissal from graduate standing, placement on probationary status, narrative evaluation or grade notation, and their academic progress. This appeal procedure applies only to enrolled graduate students at UC Santa Cruz and is not available to appeal denial of admission or readmission to any program.

The scope of this procedure is limited to the matters listed above, and excludes complaints regarding student employment as a Teaching Assistant, student discipline, auxiliary student services (such as housing, child care, etc.), and sexual harassment, which are covered by other policies and procedures.

This document outlines the four levels of complaint resolution available to graduate students at UC Santa Cruz: Instructor appeal, Departmental appeal, Graduate Dean appeal, and Graduate Council appeal. Throughout all stages of the appeal process, both parties are strongly encouraged to seek informal resolution. The Graduate Dean may be consulted for informal resolution at any stage of the process. In addition graduate students may contact the Office of the Ombudsman for assistance with informal complaint resolution. Working toward informal resolution does not preclude continuation of a formal appeal. However, unless a request for extension of a deadline is granted as provided below, informal resolution efforts shall not serve in any way to stay or extend an applicable filing deadline.

Requests for Extension of Filing Deadlines

Except as otherwise provided in this policy, any party may for good cause seek an extension of a deadline by filing a request with the Dean of the Division of Graduate Studies. Such requests must be submitted in writing prior to the deadline for which an extension is sought, and must explain the reason(s) why an extension is necessary. The decision to grant or deny a request is within the discretion of the Dean and shall be final and binding.

Basis for Appeals

An appeal may be filed based upon one or more of the following grounds, provided that the action complained of has had a material impact on the student's academic standing:

1. Procedural error or violation of official policy by academic or administrative personnel;
2. Judgments improperly based upon non-academic criteria including, but not limited to, discrimination or harassment on the basis of race, color, national origin, religion, sex, disability, age, medical condition, ancestry, marital status, citizenship, sexual orientation, or status as a veteran or special disabled veteran, or any personal or arbitrary reasons;
3. Special mitigating circumstances beyond the student's control not properly taken into account in a decision affecting the student's academic progress;
4. Capricious or arbitrary application of appropriate criteria in a manner not reflective of the student's performance in relation to a course or program requirement.

Procedure for Appeals

Throughout the appeals process all time periods are expressed in working days within the academic term or during the normal working days of summer. Students should be aware that appeals begun late in spring or in summer may be delayed by the unavailability of specific faculty and/or the Graduate Council.
A written appeal must be initiated by the student within the time limits specified below. The student must seek resolution of the action sequentially as described below, unless the action complained of is not an evaluation or grade notation. In that instance, the student would begin the appeal with Step II below.

Step I. If the student is appealing an evaluation or grade notation, the appeal must be submitted to the instructor who provided the evaluation or grade notation;
Step II. For all other appeals, or if the student is continuing the appeal of an evaluation or grade notation, the appeal must be submitted to the student's major department;
Step III. The Graduate Dean;
Step IV. The Graduate Council.
In all cases (Step I through IV), the appeal should indicate the action(s) being appealed, the date(s) the action(s) occurred, the grounds upon which the appeal is based, and the outcome desired.

Step I. Appeal to Instructor
If a student is appealing a narrative evaluation or grade notation, the student must submit a written appeal to the instructor of the course within twenty (20) working days of the deadline contained in the campus Academic and Administrative Calendar for submittal of narrative evaluations or grade notation or, if that deadline has passed, of the actual date when the faculty member filed the narrative evaluation or grade notation. The chair of the faculty member's department should be copied on the appeal, in order to inform the student if the faculty member is unavailable.
The faculty member may elect to meet with the student to discuss the appeal and determine if a reasonable compromise can be reached that is acceptable to both parties. The faculty member must submit a written response to the student with a copy to the chair of the student's department within ten (10) working days of the date of the student's Step I appeal. This deadline may be extended by the chair of the faculty member's department or his/her designate should the faculty member be away from campus for research, administrative duties, sabbatical time, or personal leave. If the course in question was sponsored by a unit other than the student's home department, the appeal should be addressed to the instructor of the course and copied to the chairs of the two departments jointly.

Step II. Appeal to the Department
The student may continue the appeal of an evaluation or grade notation with the department. In addition, a student may begin the appeal of any other action at this level. Students continuing the appeal of an evaluation or grade notation must submit a written appeal to the chair of the department of the faculty instructor of the course, and this appeal must be submitted within twenty (20) working days of the date of the written response from the faculty instructor in Step I. If the course in question was sponsored by a unit other than the student's home department, the chair of the student's home department should be copied. In addition, the student may begin the appeal of any other department action at this level by submitting a written appeal to the chair of the department. This appeal must be submitted within twenty (20) working days of the date of the notice of the appealed action.

Review of the appeal at the departmental level should be conducted by the departmental graduate affairs committee or analogous group. This group should minimally include two or more faculty members. If a faculty member's action(s) is the subject of the appeal, s/he must recuse him or herself from the committee. Departments may also elect to establish an ad hoc committee to handle appeals filed in a given academic year. The committee will initiate a review process within ten (10) working days of receipt of the appeal. The committee will receive the written appeal from the student, all pertinent

material from the faculty member and student, and any additional material considered germane to the appeal either by the student or the faculty member. The committee may request additional information, as it deems necessary.
The committee or its designated members may elect to interview the faculty member and/or student involved in the appeal. The appeal must be concluded within fifteen (15) working days of receiving the written appeal from the student.

The committee will render its decision in written form within five (5) working days of the conclusion of the review process. For the decision to be binding, it must be consensual and accepted by all parties.
If the action being appealed, such as probation or dismissal, was initiated by the department, the review process remains the same.
After ten (10) working days, the suggested resolution, if not accepted by all parties, becomes null and void.

III. Appeal to the Graduate Dean
The student may elect to submit a written appeal of the department's decision to the Graduate Dean. The decision must be appealed within ten (10) working days of the expiration of the department's suggested resolution (see Step II).

At the discretion of the Graduate Dean, the appeal may be assigned to the Associate Graduate Dean. Additionally, if the Dean determines that the appeal should be submitted directly to the Graduate Council (for example, if the Dean determines that a fair and impartial hearing may be jeopardized by conflicts within the Graduate Division or other extenuating circumstances), the Dean may refer the appeal directly to the Graduate Council.
The Graduate Dean will review all documents and records submitted in the departmental review. In addition the Graduate Dean may meet with the student, faculty member(s), and/or graduate affairs committee, where appropriate, and may consider additional materials as s/he deems appropriate. The nominal time limit for completing the Graduate Dean's review in within twenty (20) working days of receipt of the student's appeal

The Graduate Dean may suggest a resolution of the appeal in written form within five (5) working days of completion of his/her review. For the decision to be binding, it must be consensual and accepted by all parties.
After ten (10) working days, the suggested resolution, if not accepted by all parties, becomes null and void.

IV. Appeal to the Graduate Council
The student may submit a final appeal to the Graduate Council within ten (10) working days of the expiration of the Dean's suggested resolution (see Step III). The Graduate Council is a committee of the Academic Senate. There are ten Santa Cruz faculty members, plus the Graduate Dean serving ex officio. In addition, there are one Library representative nominated by the UCSC Librarians Association, no more than three Graduate Student Association representatives, and one Postdoctoral Scholars Association Representative.

The student will submit a written appeal to the Graduate Council through the Academic Senate Office. The Graduate Dean will forward all pertinent documents to the Graduate Council for evaluation. The Chair may request additional information, as she/he deems necessary.

The Graduate Council Chair in consultation with the Graduate Council will review the file and determine whether sufficient cause exists to justify a formal hearing. This determination must be made within ten (10) working days of receipt of the student's appeal, a written decision must be submitted within five (5) working days thereafter. If the Council declines to hear the case, this would be the final conclusion of the appeals process.

If the Council determines that a hearing is to be held, the student and instructor or chair of the department will be notified of the initial hearing date in writing at least twenty (20) working days in advance. The hearing may continue to later session if necessary but in any case must be completed within ten (10) working days.
The Graduate Council Chair may at his/her discretion constitute a subcommittee of at least four members, including at least one student representative, to hear the appeal, or she/he may convene the Graduate Council as a whole, as

appropriate to the case and circumstances. If a subcommittee is established, it acts for the Graduate Council for the remainder of the appeal at this level. At least five (5) calendar days prior to the hearing date, each party shall provide the other with all relevant materials, including: names of all witnesses and any and all written materials to be introduced at the hearing. Copies of this material must also be submitted to the Graduate Council at least ten (10) working days prior to the hearing.

During the appeal, the Graduate Council shall review the charges. At the hearing, the Graduate Council may interview such witnesses as are brought to the hearing by either party or such other witnesses as the Graduate Council considers relevant.

During the procedure, the graduate student members of the Graduate Council participate fully and equally with faculty members of the Graduate Council to review the issues of the case and ensure due process for the student. The graduate students are not to be viewed as a special resource or advocate for the student to any greater degree than any individual faculty member of the Graduate Council.

A formal hearing will follow these procedures and conditions:

1. The student:

    a. shall be present throughout the hearing. If the student fails to attend the hearing, she/he shall be considered to have abandoned her/his appeal unless deferral was granted by the Graduate Council;

    b. may be accompanied by a Senate member of her/his choice, if desired and available;

    c. may be accompanied by a graduate student of her/his choice to serve in an advisory role, if desired and available;

Please note: although Graduate Council will attempt to accommodate requests, the non-availability of a requested accompanying Senate member or graduate student is not sufficient cause for delay of an appeals hearing, nor does it affect the legitimacy of the Council's findings.

    d. shall have the right to present evidence, including witnesses, first; and

    e. may cross-examine all witnesses presented by the instructor, department, or dean. If the student desires a Senate member as an advisor and is unable to secure a Senate member to serve in this role, the Graduate Council, at the student's request, will appoint a faculty member to act in this role. This advisor may or may not be a member of the Graduate Council. A Graduate Council member serving in this capacity shall be recused from the Graduate Council deliberations of the appeal.

2. The hearings will be confidential and limited to the principals (student, Senate member selected by the student, graduate student selected by the student, and instructor or department representative or relevant administrator), and members of the Graduate Council (but see 3 and 5 below).

3. By prior arrangement, witnesses may be interviewed as part of the hearing process.

4. All witnesses other than the student and the instructor (or department representative or other relevant administrator) shall be excluded from the hearing except when testifying.

5. Evidence may be oral or written, but must be limited to issues raised in the original written complaint. Formal rules of evidence shall not apply, and evidence shall be admitted if of the type upon which reasonable people are accustomed to rely in the conduct of serious affairs. The Graduate Council may, in its discretion, exclude irrelevant or unduly repetitive evidence. At its discretion the Graduate Council may agree to hear closing arguments (either oral or written at the Council's discretion) as to the correct resolution of the matter. If the Council determines to allow written closing arguments, the hearing process shall be deemed complete upon the parties' submission of their written arguments to the Council.

6. The meeting shall be tape recorded, or, at the option of the student, a stenographer may be provided at the student's expense. The student shall have access to a copy of the tape recording and may copy the tape at her/his expense. All records pertaining to the hearing shall be kept by the Graduate Council for a period of three years. Student records shall be retained beyond that time if there is an outstanding request by a principal party to the review to inspect them.

7. The Graduate Council will reach its finding subsequent to completion of the hearing. The deliberations of the Graduate Council shall be in private. The Graduate Council shall submit a written finding including an explanation for the basis of it to the Graduate Dean within ten (10) working days of the date of completion of the hearing process.

8. Consistent with Senate authority and informed by the finding of the Graduate Council, the Graduate Dean will make the final decision on all cases involving probation and dismissal. The Graduate Council will have final decision-making authority in all other cases. In either case, the decision must be made within ten (10) working days of the receipt of the Graduate Council finding. Grade changes mandated by the Graduate Council are limited to Satisfactory/Unsatisfactory/Withdraw.

9. The Graduate Dean will have the administrative responsibility to implement the elements of the final decisions from Step 8 and to ensure that the instructor involved and/or department abide by the terms of the final resolution of the appeal. In addition the Graduate Dean will take reasonable steps to ensure that the student is not subject to any form of retaliation and is further restored to good standing with the department if so determined by the decision of the review. This may include the provision of lost wages or fellowship funds if so determined by the decision of the review.

V. Financial Support

Financial support will continue for the student for the term in which the appeal is submitted. Support beyond this term will be contingent upon approval of the department and the Graduate Dean, and determined on a case-by-case basis.

VI. Ramifications of Appeal Process

At all stages of the appeal process, a faculty member may request that his or her name be removed from the course in the final academic transcript.

No punitive actions may be taken against the instructor on the basis of these procedures. Neither the filing of an appeal by a student nor the final disposition of the appeal shall, under any circumstances, become a part of the personnel file of the instructor. The use of non-academic criteria in assigning a grade is a violation of the Faculty Code of Conduct. Sanctions against an instructor for violation of the Faculty Code may be sought by filing a complaint in accordance with CAPPM 002.015 or the relevant collective bargaining agreement. A complaint may be filed by the student or by others consistent with CAPPM 002.015.

No punitive action may be taken against the complainant on the basis of these procedures. Neither the filing of an appeal by a student nor the final disposition of the appeal shall, under any circumstances, become a part of the complainant's file. The instructor may, if he or she feels that his or her record has been impugned by false and malicious allegations, file charges against the complainant through the Office of the Vice Chancellor for Student Affairs.

This information can also be found in Appendix D of the Academic Senate Manual