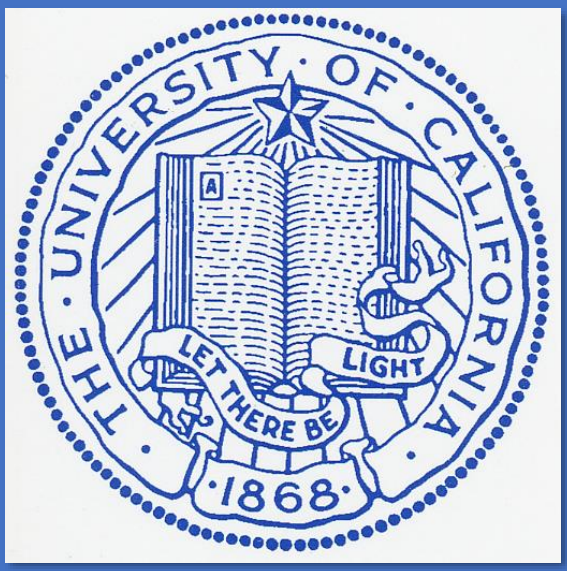
Department of Molecular Biology + Biochemistry

HANDBOOK FOR GRADUATE STUDENTS



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2024-2025 ACADEMIC YEAR

UNIVERSITY OF CALIFORNIA, IRVINE

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SCHOOL OF BIOLOGICAL SCIENCES
DEPARTMENT OF MOLECULAR BIOLOGY & BIOCHEMISTRY

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This handbook is designed for students who enter the Department of Molecular Biology and Biochemistry (MBB) to complete studies for a **doctoral degree**. We warmly welcome those who are just joining the Department and hope you will find the handbook a source of practical information that will help you in your academic and research endeavors.

Pre-doctoral students most typically become part of MBB in the second year, after completing first year rotations under the sponsorship of the Cellular and Molecular Biosciences Program or another gateway graduate program. In rare cases, students are individually sponsored by an MBB faculty member and enter the program through "direct admission". To join MBB, you must pass a first-year preliminary examination administered by the gateway program that you entered through. With the exception of those who hold a master's degree in biology from MBB, *students who enter by direct admission must complete a similar format preliminary exam after one year as a graduate student*. Once you pass the advancement to candidacy examination (in your third year), you are formally considered a "doctoral" or "dissertation status" student.

For all incoming students, your graduate advisor must complete **transfer agreement paperwork** with the MBB administration for you to have an official affiliation with MBB. From this time on, you are formally associated with MBB, and will complete your teaching obligations, studies, and research as a member of our department. Students typically complete their work for the doctorate in five years (normative time to degree). The maximal time to degree is by the end of the seventh year.

This handbook describes the MBB Department, your academic requirements, and resources available to you during your studies.

Mei Kong & Suzanne Bohlson
MBB Graduate Advisor

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Please introduce yourself to any of these people when you join the Department if you have not already met them in other ways.

Important General Information for Graduate Students

This section describes rules and guidelines for classwork, research, exams, resources, regulations, and administrative processes in MBB that you will need to know for your time in the program.

1. CLASSWORK:

1A. Academic progress: All courses must be passed by a grade of **B or better**, or by an **S** (satisfactory). If you receive lower than a B- in any course, you will be placed on conditional academic status and will receive a cautionary letter from the graduate advisor. *When on conditional academic status you cannot TA.* The Associate Dean of Graduate Studies, Graduate Advisor and your graduate mentor will work with you to develop a specific plan to remediate your academic performance. If you fail to remediate the circumstances of this provisional status, Graduate Division and the Associate Dean will initiate a request to disqualify you from the program.

1B. Curriculum:

THE FIRST YEAR: Generally, MBB students enter through a first-year gateway program such as Cellular and Molecular Biosciences (CMB), Interdepartmental Neuroscience Program (INP), or Mathematical, Computational and Systems Biology (MCSB). Gateway students complete specific coursework requirements for their specific first-year program. For example, within the CMB gateway, students pick one of five Focus Areas, each with its own required and recommended courses. The course options allow the student, in consultation with his or her advisor, to optimize the course curriculum to the student's background and research interests. In addition, all students in the program are required to take "Ph.D. Fundamentals" in Fall quarter, "Research Methods" in the Winter and "Responsible Conduct of Research", currently offered in the Spring quarter. A voluntary student-only journal club is offered during Winter and Spring quarters. **Students doing rotations in MBB will also enroll each quarter in Mol Bio 200R (first year research with their mentor) and Mol Bio 202 (laboratory discussion).**

After completing first-year requirements and passing the preliminary examination, the student selects a thesis advisor and begins thesis research in MBB.

SECOND YEAR: You will enroll in at least one elective course in the second year. *The choice is dictated in many cases by your academic track, by your research sponsor, or by the requirements of a Training Grant if you have support from one*. A non-inclusive list of suitable electives is listed below and on the CMB website. During the second year and beyond, students also participate in journal clubs and seminars. These include Mol Bio 201 (Departmental Seminar) and Mol Bio 229 (Research in Progress). Each quarter, you should also enroll in sufficient credits of Mol Bio 200 (Research) and Mol Bio 202 (tutorial) in order to be considered full-time (12 credits). ***It is important to enroll in on-going research with your advisor (202A)*** *and not their first year (rotation) research (200R).* Rotation research is graded S/U but on-going research is required to be evaluated with a letter grade. It is extremely complex to correct this error later, so make certain that you understand this distinction.

Regular teaching of undergraduates (for at least two quarters at 50%) is a *mandatory* part of graduate student training and should be completed in the first or second year of study in MBB. You will be partially supported by a TA fellowship for the quarters you are required to teach. Given their compressed academic schedule, MD/PhD students may choose to have this requirement waived. Please speak with the MBB Graduate Advisor if you have questions. *For students who work with a thesis advisor with a dual appointment, you may TA in the other department, but this will not count towards the TA requirement, which must be completed by serving in MBB.*

THIRD, FOURTH, FIFTH YEARS: In addition to the 200, 201, 202 and 229 series each quarter, you are required to enroll in one 4-credit didactic course (not a journal club, lab discussion group, research tutorial or departmental seminar) during your third and fourth years. Beyond the courses listed on the Cellular and Molecular Biosciences website, many others, even in other Schools, may serve your interests, and you may enroll in them with the approval of your dissertation director and the MBB Graduate Advisor. These should have direct relevance to your independent research, such as a programming or statistics class to be appropriate choices. Requirements for the fifth year are the same as for the third and fourth, with the exception that a didactic course is NOT required if you are on target to defend your thesis during this year. Thus, you will be required to complete 3 didactic courses in years 2, 3 and 4, before your graduation.

1C. Graduate Program Electives

If you would like to make a case for approval of a 4-credit course that is not listed as an elective below, please send the graduate advisor a timely email with the following information:

a. Course number and name
b. Course instructor(s)
c. Course content (attach a syllabus if available)
d. A brief justification of why this course is best suited to your graduate studies.

Electives must be a 4-credit didactic class and not a workshop or journal club. Enrolling in two 2-credit workshops/journal clubs does not satisfy this requirement. Four-credit programming, chemistry or statistics classes do satisfy this requirement, with appropriate permission. Classes taken in the Division of Continuing Education do not qualify as electives and credit is not transferable.

Specialization in Structural Biology, Biochemistry & Biophysics

- **MOL BIO 204.** Protein Structure and Function. 4 Units. *The structure and properties of proteins, enzymes, and their kinetic properties.*
- **MOL BIO 214.** Literature in Protein Structure and Function. 2 Units. *Exploration and critical analysis of recent primary scientific literature in structure and properties of proteins, enzymes, and their kinetic properties.* Corequisite: MOL BIO 204.
- **MOL BIO 203.** Nucleic Acid Structure and Function. 4 Units. *Structure and chemistry of nucleic acids. Relationship between these properties and the mechanisms of fundamental processes such as replication and repair, RNA-mediated catalysis, formation and regulation of higher order chromatin structure and recombination*.
- **MOL BIO 213.** Literature in Nucleic Acid Structure and Function. 2 Units. *Exploration and critical analysis of recent primary scientific literature in structure, properties, and biological mechanisms involving nucleic acids.* Corequisite: MOL BIO 203.
- **PHYSIO 252.** Introduction to Proteomics. 4 Units. *Introduces students to concepts and methods of proteomics including protein identification, expression proteomics, and protein-protein interactions.*
- **MOL BIO 211.** High-Resolution Structures: NMR and X-ray. 4 Units. *Basic principles of magnetic resonance and x-ray crystallography toward the determination of high-resolution biomolecular structures.*
- **PHYSIO 232.** The Physiology of Ion Channels. 4 Units. *Discusses how ion channels work (structural biophysics) and what ion channels do in diverse cell types (physiology).*
- **CHEM 218.** Metallobiochemistry. 4 Units*. A review of the biochemistry of metallic elements emphasizing: methods for studying metals in biological systems; the chemical basis for nature's exploitation of specific elements; structures of active sites; mechanisms; solid-state structures and devices; metals in medicine.*
- **CHEM 216.** Organometallic Chemistry. 4 Units. *Synthesis and reactivity of organometallic complexes with an emphasis on mechanisms. Topics include bonding and fluxional properties;*

metal-carbon single and multiple bonds; metal complexes. Applications to homogenous catalysis and organic synthesis are incorporated throughout the course.

- **MOL BIO 223.** Introduction to Computational Biology. 4 Units. *The use of theories and methods based on computer science, mathematics, and physics in molecular biology and biochemistry. Basics in biomolecular modeling. Analysis of sequence and structural data of biomolecules. Analysis of biomolecular functions.*
- **MMG 206.** Regulation of Gene Expression. 4 Units. *Aspects of gene expression including organization of the eukaryotic nucleus in terms of protein-nucleic acid interaction; comparisons between prokaryotic and eukaryotic gene expression, enzymology and regulation of RNA transcription in E. coli and other prokaryotes; enzymology of transcription in eukaryotes.*

Specialization in Developmental and Stem Cell Biology

- **DEV BIO 231B.** Cell Biology. 4 Units. *A broadly-based course, topics include extracellular matrix, cytoskeleton, organelle biogenesis, receptor-mediated endocytosis, signal transduction, cell cycle, and developmental biology.*
- **MMG 206.** Regulation of Gene Expression. 4 Units. *Aspects of gene expression including organization of the eukaryotic nucleus in terms of protein-nucleic acid interaction; comparisons between prokaryotic and eukaryotic gene expression, enzymology and regulation of RNA transcription in E. coli and other prokaryotes; enzymology of transcription in eukaryotes.*
- **DEV BIO 245.** Stem Cell Biology. 4 Units. *The basic characteristics and development roles of embryonic, adult, and cancer stem cells in the human body and in model systems and the use of experimental and genetic methods to analyze and manipulate their properties.*
- **DEV BIO 210.** Advanced Developmental Genetics. 4 Units. *Discussion of critical concepts in developmental biology and regeneration, with emphasis on model organisms such as Drosophila, Zebrafish, and murine systems. Molecular mechanisms underlying key developmental decisions discussed.*
- **DEV BIO 207.** Mouse Developmental Genetics. 4 Units. *Introduction to using the mouse in contemporary biomedical research. The biology and development of the laboratory mouse, methods for manipulation of the mouse genome and embryos, and examples of application of these methods to understand mammalian development and homeostasis.*
- **BIOCHEM 207.** Advanced Molecular Genetics. 4 Units. *Literature-based discussion of principles in genetics and functional genomics, with focus on cancer and stem cell biology.*
- **BIOCHEM 225.** Chromatin Structure and Function. 4 Units. *Focuses on the role of chromatin/nuclear structure organization in eukaryotic genome regulation. The effects of histone and DNA modification, chromatin remodeling, higher order chromatin structure and nuclear organization on gene regulation, DNA replication, and repair are discussed.*

Specialization in Immunology and Microbiology

- **DEV BIO 231B.** Cell Biology. 4 Units. *A broadly-based course including topics in extracellular matrix, cytoskeleton, organelle biogenesis, receptor-mediated endocytosis, signal transduction, cell cycle, and developmental biology.*
- **MMG 206.** Regulation of Gene Expression. 4 Units. *Aspects of gene expression including organization of the eukaryotic nucleus in terms of protein-nucleic acid interaction; comparisons between prokaryotic and eukaryotic gene expression, enzymology, and regulation of RNA transcription in E. coli and other prokaryotes; enzymology of transcription in eukaryotes.*
- **MOL BIO 215.** Integrative Immunology. 4 Units. *Lectures and student presentations of primary literature. The main goal is to achieve a basic understanding of the cellular and molecular basis of innate and adaptive immunity, and how immune function is coordinated at a systems level.*
- **MMG 222.** Molecular Pathogenesis of Microbial Infections. 4 Units. *Features lectures by faculty on the molecular aspects of viral pathogenesis, highlighting both viral and cellular functions.*

- **MOL BIO 221.** Advanced Topics in Immunology. 4 Units. *Literature-based, interactive discussions focused on review of seminal historic and recent immunology literature. Student responsibilities include reading, critical evaluation, and discussion of manuscripts.*
- **MOL BIO 205.** Molecular Virology. 4 Units. *Primary research data on the major DNA and RNA viruses emphasizing strategies of regulation of gene expression. Utilization of viruses as molecular biological tools. Graduate-level knowledge of the biochemistry and molecular biology of macromolecules is required.*

While PATH 221/MMG 221 Immunopathogenic Mechanisms of Disease (3 Units) has previously been listed as an elective, it does not meet the minimum units for the elective. You may enroll in this class but it does not meet the department and school requirements for an elective.

Specialization in Cancer and Cell Biology

- **DEV BIO 231B.** Cell Biology. 4 Units. *A broadly-based course including topics in extracellular matrix, cytoskeleton, organelle biogenesis, receptor-mediated endocytosis, signal transduction, cell cycle, and developmental biology.*
- **MMG 206.** Regulation of Gene Expression. 4 Units. *Aspects of gene expression including organization of the eukaryotic nucleus in terms of protein-nucleic acid interaction; comparisons between prokaryotic and eukaryotic gene expression, enzymology, and regulation of RNA transcription in E. Coli and other prokaryotes; enzymology of transcription in eukaryotes.*
- **MOL BIO 217A.** Principles of Cancer Biology I. 4 Units. *Oncogenes and tumor suppressor genes are studied from molecular viewpoints. Also studies their role in cancer; viral carcinogenesis. Designed for graduate students interested in cancer research. Format includes lectures and student-led discussions.*
- **BIOCHEM 225.** Chromatin Structure and Function. 4 Units. *Focuses on the role of chromatin/nuclear structure organization in eukaryotic genome regulation. The effects of histone and DNA modification, chromatin remodeling, higher order chromatin structure and nuclear organization on gene regulation, DNA replication, and repair are discussed.*
- **PHYSIO 252.** Introduction to Proteomics. 4 Units. *Introduces students to concepts and methods of proteomics including protein identification, expression proteomics, and protein-protein interactions.*
- **PHYSIO 232.** The Physiology of Ion Channels. 4 Units. *Discusses how ion channels work (molecular/structural biophysics level) and what ion channels do in diverse cell types (cell physiology level).*
- **DEV BIO 245.** Stem Cell Biology. 4 Units. *The basic characteristics and development roles of embryonic, adult, and cancer stem cells in the human body and in model systems and the use of experimental and genetic methods to analyze and manipulate their properties.*
- **MOL BIO 205.** Molecular Virology. 4 Units. *Primary research data on the major DNA and RNA viruses emphasizing strategies of regulation of gene expression. Utilization of viruses as molecular biological tools. Graduate-level knowledge of the biochemistry and molecular biology of macromolecules is required.*
- **MOL BIO 217B.** Principles of Cancer Biology II. 4 Units. *Topics include cancer cell growth and metastasis, chemical carcinogenesis, and cancer genetics and epidemiology. Designed for graduate students interested in cancer research. Format includes lectures and student-led discussions.*
- **BIOCHEM 240.** New Breakthroughs in Basic and Translational Cancer Research. 4 Units. *Highlights breakthroughs in molecular and cellular aspects of cancer biology and emerging therapeutic approaches. Emphasis on new discoveries of critical pathways/processes in cancer etiology, progression, and metastasis. Introduces strategies used in the discovery, design of biological and small molecules-based therapies.*

Specialization in Genetics, Epigenetics and Genomics

- **MMG 206.** Regulation of Gene Expression. 4 Units. *Aspects of gene expression including organization of the eukaryotic nucleus in terms of protein-nucleic acid interaction; comparisons between prokaryotic and eukaryotic gene expression, enzymology, and regulation of RNA transcription in E. coli and other prokaryotes; enzymology of transcription in eukaryotes.*
- **DEV BIO 214.** Principles of Genomics. 4 Units. *A survey course of the principal subfields of genomics and their applications to biological and health sciences that will cover genome assembly and annotation, genome structure, comparative genomics, population genomics, functional genomics, and medical genomics.*
- **BIOCHEM 225.** Chromatin Structure and Function. 4 Units. *Focuses on the role of chromatin/nuclear structure organization in eukaryotic genome regulation. The effects of histone and DNA modification, chromatin remodeling, higher order chromatin structure and nuclear organization on gene regulation, DNA replication, and repair are discussed.*
- **BIOCHEM 207.** Advanced Molecular Genetics. 4 Units. *Literature-based discussion of molecular principles in genetics and functional genomics, with focus on cancer and stem cell biology.*
- **MOL BIO 203.** Nucleic Acid Structure and Function. 4 Units. *Structure and chemistry of nucleic acids. Relationship between these properties and the mechanisms of fundamental processes such as replication and repair, RNA-mediated catalysis, formation and regulation of higher order chromatin structure and recombination.*
- **NEUROBIO 230.** Epigenetics in Health and Disease. 4 Units. *Current topics in epigenetics, focusing on the impact of epigenetic regulation of the genomic functions (gene regulation, DNA replication and repair) on development, metabolism, learning and memory, and human disorders.* [Cross listed as BIOCHEM 225].
- **COMPSCI 284A.** Representations and Algorithms for Molecular Biology. 4 Units. *Introduction to computational methods in molecular biology, aimed at those interested in learning about this interdisciplinary area. Covers computational approaches to understanding and predicting the structure, function, interactions, and evolution of DNA, RNA, proteins, and related molecules and processes.*
- **DEV BIO 210.** Advanced Developmental Genetics. 4 Units. *Focuses on discussion of critical concepts in developmental biology and regeneration, with emphasis on model organisms such as Drosophila, Zebrafish, and murine systems. Molecular mechanisms underlying key developmental decisions also discussed.*

Specialization in Pharmaceutical Sciences

- **PHRMSCI 223.** Biological Macromolecules. 4 Units. *Introduction to nucleic acid and protein structure, dynamics, and function. Topics include analytical methods, molecular evolution, folding, and catalysis.* [Same as CHEM 223].
- **PHRMSCI 263.** Pharmacogenomics and Epigenetics. 4 Units. *Survey of the genetic and epigenetic basis of inter-subject variability in response to drugs. Covers drug efficacy, safety, and the need for their optimization in pharmacotherapy. Emphasizes genetic mechanisms of polymorphisms in the pharmacokinetics and pharmacodynamics of therapeutic drugs*.
- **PHRMSCI 264.** The RNA World: From Discovery to Mechanism. 4 Units. *Provides a comprehensive understanding of RNA in biology. Use of knowledge gained in organic chemistry, biochemistry, genomics, and molecular biology to understand how RNA is integrated into contemporary biology.*
- **PHRMSCI 265.** New Frontiers in Chemical and Synthetic Biology. 4 Units. *Explores new developments in chemical and synthetic biology that span the areas of chemistry, molecular biology, genetics, bioengineering, systems biology, and computational genomics.*

- **PHRMSCI 274.** Nanomedicine. 4 Units. *Students will learn the current challenges in administering drugs to treat highly challenging diseases, the background theories of drug and gene delivery systems, and apply their knowledge in designing innovative forms of therapeutics formulations.*
- **PHRMSCI 275.** Drug Discovery Computing Techniques. 4 Units. *Techniques used in computer-aided drug discovery, including theory behind these techniques and practical applications. Topics include scientific computing; python; classical force fields and simulations; visualization and movie-making; quantum mechanics in drug discovery; molecular dynamics; solvation models; and several others.*
- **PHRMSCI 277.** Medicinal Chemistry. 4 Units. *Fundamentals of medicinal chemistry covering diverse aspects of drug design, discovery, synthesis, and development. Molecular basis of drug action with an emphasis on the structure-to-function continuum.*
- **PHRMSCI 278.** Stem Cell Therapy. 4 Units. *Introduces new paradigms in regenerative medicine particularly those that involve stem cells, and emerging molecular, nano- and micro-engineered tools for in vivo imaging that is critical for studying and monitoring regeneration.*
- **PHRMSCI 279.** Emerging Technologies in Pharmaceutical Sciences and Medicine. 4 Units. *Introduces emerging, ground-breaking technologies in pharmaceutical sciences and medicine, including pharmacogenomics, genome editing, and stem cell and engineered T cell therapies. Explores these novel technologies with both their underlying theories and forward-thinking applications.*

1D. RIP talks: MBB-affiliated students in the doctoral program are required to give a 30-minute research in progress talk annually, beginning in their second year at UCI. These students may be direct admission students seeking a doctoral degree or they may have joined the department from a gateway program such as the CMB program. The RIP talks are coordinated by Professor Ben Morehouse (b.morehouse@uci.edu) and Professor Travis Wiles (travis.wiles@uci.edu) and are scheduled Tuesdays at 12:00 -1:00. *Graduate students are expected to attend and should enroll in Mol Bio 229 (Research in Progress) as a journal club class.* In rare instances, students encounter a scheduling conflict with another class that they wish to attend. In this case, the student may be given permission to not attend the RIP talks for that quarter (and should not sign up for it as a class). Students are still expected to present their own research in this case.

1E. Classwork for direct admission students:

- Students without a Master of Science (MS) Degree from UCI:

Required to follow the curriculum designed for first year CMB students but all lab rotations are to be completed within the mentor's lab.

Fall Quarter-
Core course (4 units)
200R Rotation (4 units)
292A Scientific Communication (2 units)
MBB 291 Ph.D. Fundamentals (2 units)
Total= 12 units

Winter Quarter-
Core course (4 units)
200R Rotation (4 units)
292B Scientific Communication (2 units)
MBB 295 Biomedical Research Methods (2 units)
Total= 12 units

Spring Quarter-
Core course (4 units)
200R Rotation (4 units)

292C Scientific Communication (2 units)
MMG 250 Conduct of Research (2 units)
Total= 12 units

- Students possessing an MS from UCI:

Designated as equivalent to third year students and expected to undertake courses aligned with the CMB third year curriculum as described above. ***It is important to enroll in on-going research with your advisor (202A) and not their first year (rotation) research (200R).***

2. RESEARCH:

The laboratory: Your research advisor's laboratory is under his or her direction. Common to all laboratories is the need to familiarize yourself with handling hazardous and toxic materials, and to receive *formal training and certification* in general laboratory safety as well as in handling and disposal of hazardous and radioactive waste, chemical safety, blood borne pathogens and viral vectors (as required) if you have not yet done so. Students must also complete MMG250 Responsible Conduct of Research (typically during their first year).

Facilities: Many common facilities and pieces of equipment are available to your laboratory, and you should familiarize yourself with them as you need them, beginning with training in their use. Please be sure to get permission or sign up for equipment; leave it clean; report any problems; and respect the needs of others.

Emergencies: You have access to fire, rescue, and police at the 911 emergency number. The non-emergency number for campus police is 824-5223 (45223 from campus phones).

3. EXAM REQUIREMENTS FOR MBB GRADUATE STUDENTS:

3-1. Preliminary examination: At the end of the first year at UCI, students must pass a qualifying exam to verify that they have mastered the content of the first-year gateway program. See the CMB website for details (http://cmb.uci.edu/files/2014/03/Prelim_Exam_Instructions_2014.pdf). Students who enter by **direct admission to MBB** (sponsored by a specific MBB faculty member) **must complete a similar format preliminary exam after one year as a graduate student unless the student has completed a MS degree in MBB at UCI.** *In the case of direct admission students, the committee will consist of three MBB faculty members: the sponsoring faculty advisor cannot serve on this exam.*

a. Format of the preliminary examination: During the exam, you will present a 50-minute talk covering research that you have done in two rotation labs, followed by a 50-minute chalk talk (power-point not allowed) on studies that you propose based on a published paper that you select. The possible outcomes of the exam are:

(1) Students who pass the exam will move immediately to departmental Ph.D. Programs.
(2) Fail with an opportunity to retake the exam within one month (with the same committee). If the student fails the exam a second time, the committee decision is referred to the Program Director for action.

b. The preliminary exam committee is comprised of three faculty members familiar with the general area of research investigation that the student has studied in the first year. *Rotation advisors and future graduate mentors are not permitted to serve on this committee*.

3-2. Pre-advancement examination: MBB students are required to complete a pre-advancement exam *no later than the end of the summer following their second year at UCI*. In addition to providing a means to assess that you are making sufficient progress on your research; the pre-advancement exam is also meant to prepare you for the advancement to candidacy examination (which should take place within the year following the pre-advancement). Completion of this evaluation is expected to occur in a timely fashion for students to maintain normal progress in the program. Students must submit a completed MBB pre-advancement evaluation form (signed by all committee members) to the MBB graduate student coordinator (Lissette Umanzor), and the evaluation form will be placed in their academic file. *Students are expected to schedule the exam themselves in a timely fashion and in coordination with their faculty advisor*. *For direct admit students who have a UCI MS degree, the "clock" for your exams is set by your matriculation in the MS program. Therefore, your first year in the doctoral program is your third year in graduate school and you should complete the pre-advancement exam and attempt to complete the advancement exam by the end of this year*.

a. Format of the pre-advancement examination: Students should prepare a brief 2-5-page document summarizing their data and future directions that should be submitted to the pre-advancement committee at least a week in advance of the scheduled exam. The oral presentation should consist of relevant background information and a hypothesis, preliminary data, and a plan for future directions. **Students must obtain the pre-advancement examination form from the Student Affairs Coordinator (Lissette Umanzor) to bring to the exam and return the completed document to her.** You should anticipate being asked questions about the material and additional background. The meeting should take between 90 minutes and 2 hours. If you have made *exceptional progress*, your pre-advancement committee may choose to have you write a longer advancement document subsequent to the presentation and have this and your pre-advancement exam count as your advancement exam. This outcome is possible but not likely except in exceptional circumstances. *If you wish to have your pre-advancement considered for ATC status, you must convene a committee that meets the ATC exam requirements (see below)*.

b. The pre-advancement committee should be composed of the student's graduate mentor and at least two other faculty members, with the **majority** of the committee being MBB faculty.

3-3. Advancement to Candidacy Examination: During your second and third years, you will work to define a research problem suitable for your dissertation. Toward the end of the third year, you will write and defend a proposal for the thesis work that summarizes your preliminary data and gives a solid plan for the remainder of the dissertation. The normative time to complete the ATC exam is **by the end of the third year (ninth academic quarter)**. Students who complete the ATC by the last day of spring quarter of the third year may be eligible for a *financial incentive* from the school. Students who have not completed the ATC exam by the beginning of the eleventh quarter are considered not to be making satisfactory progress and may be placed on Conditional Academic Status. After advancing, you should make certain that you schedule yearly or biannual meetings with your thesis committee to provide them with regular updates on your progress. *Remember, this is a chance to run your ideas and emerging data past a group of researchers who can advise you as to techniques, strategies, and alternative interpretations*. Advancement to candidacy represents the fulfillment of all requirements except continuing courses and a thesis. It is therefore contingent on having passed all courses with a grade of B or better. If courses have not been passed satisfactorily, the first-year examination or remedial work must be cited in evidence of having gained additional competence in the area. *Students are expected to schedule the exam themselves in a timely fashion and in coordination with their faculty advisor*. *For direct admit students who have a UCI MS degree, the "clock" for your exams has been set by your matriculation in the MS program. Therefore, your first year in the doctoral program is your third year in graduate school and you should attempt to complete the advancement exam by the end of this year*

a. Format of the Advancement to Candidacy Examination: The form of the proposal is that of an NIH proposal, in which the aims, background and significance, preliminary data, and proposed experiments are presented in that order. *Please be concise with your writing within the current NIH R01 page limit (12 pages, single space, text, and figures total with a separate Aims page; references are not included in the 12-page limit).* The advancement examination is based on this proposal and is carried out by a five- member committee approved by the Graduate Advisor. **Students should work with the Student Affairs Coordinator (Lissette Umanzor) to set up the electronic DocuSign form for this exam prior to the meeting.**

b. Advancement to Candidacy Committee: The committee includes your dissertation director and a minimum of three other faculty members. According to Irvine Regulation (IR) 915 Advancement to Candidacy, the majority of members must be within MBB (these may include those with joint appointments). While an outside member is not obligatory, their participation is highly recommended. Please connect with your PI to find the best option for you.

3-4. Annual Dissertation Committee Meetings: You are required to meet with your Dissertation Committee at least once a year until your defense, so that good progress can be confirmed. After each meeting, the **"Graduate Student Annual Report" (GSAR)** should be completed by your committee. Return the completed form to the Student Affairs Coordinator (Lissette Umanzor).

a. Format of the annual meeting and report: Students must prepare a brief 2-5-page document summarizing their data and future directions that should be submitted to the dissertation committee at least a week in advance of the scheduled meeting. The student presentation should summarize data and provide a plan for future directions, including an anticipated timeline for these experiments. **Students must obtain the required GSAR form from the Student Affairs Coordinator (Lissette Umanzor) to bring to the meeting.**

b. Dissertation Committee: The dissertation committee includes your graduate advisor and a minimum of two other faculty members and must have a majority of its members from MBB (including those with joint appointments). It usually represents a subset of the members of your

advancement committee and you may add new members who did not serve on your advancement committee to provide expertise in a particular area. After advancing, you should make certain that you schedule yearly or biannual meetings with your thesis committee to provide them with regular updates on your progress.
Please note: If your committee members have changed between the time you advanced to your final defense, please email Lissette Umanzor at lumanzor@uci.edu once you have your official final committee (at least one quarter prior to graduating) so we can notify Grad Division.

3-5. Dissertation defense: You should aim to defend your doctoral thesis by the end of your fifth year. In other words, before the fall quarter that begins your sixth year (16th academic quarter). Maximal time to degree is before the beginning of your eighth year (22nd academic quarter). *After this time students are no longer eligible for non-instructional University resources*. You must schedule a final "green light" meeting with your thesis committee in order to verify that your research is sufficiently developed for your final defense. You will need to have the committee members sign the **GSAR Final Defense Form** which should be filed with the Student Affairs Coordinator (Lissette Umanzor). Additionally, the defense of your dissertation may only be scheduled after you submit a completed thesis to your committee to approve. Although you may be asked to further revise the thesis document after your defense, the version you submit to the committee should be complete and not a preliminary draft. the Student Affairs Coordinator (Lissette Umanzor) will also help you identify a room for the defense seminar once your committee has approved the pre-defense version of your thesis. Please note that MBB will enforce a strict policy of **non-overlapping scheduled defenses for MBB graduate students**. Particularly in spring quarter, this means that you must schedule your defense comfortably in advance of the filing deadlines to avoid scheduling conflicts.

a. Dissertation committee: The thesis committee includes your dissertation director and must have a majority of its members from MBB (these may include those with joint appointments). See description on previous page.

b. Dissertation format: The dissertation is the fruit of three to five years of work. It may be prepared in a variety of formats. Dissertations should include an **"introductory chapter"** that provides background information and a larger framework to consider the research data presented in the thesis. In other words, place your data in the larger context of previous studies by other investigators. Dissertations should conclude with a **"summary and future directions" chapter** that summarizes the findings from this work and proposes the next lines of investigation to follow. In between these chapters are your data chapters. Your **data chapters** may have been previously published as scientific publications; they may be manuscripts in preparation; or they may present data that is important for the lab to have recorded, but which is unlikely to be included in a publication at this time. You may place an embargo for 6 months to a year on the content of your submitted thesis, but after this point it is a publicly available document. Please make certain that you determine whether you need to obtain publication permissions for figures, tables and writing that appears elsewhere prior to its inclusion in your thesis. *Although it has been a common strategy to insert published documents into the thesis as chapters, this has been problematic for copyright assignment, as the thesis processing service can be complicated by the presence of co-authors on previously published papers.* In the case of papers with joint authorship, contributions of the Ph.D. candidate must be spelled out briefly with acknowledgements for data contributed by other lab members or collaborators.

Software programs that **detect plagiarism** may be problematic for official thesis submission and copyright if your chapters have significant overlap:

1. with a **peer reviewed paper** and you are not first author on the publication
2. if the **chapter was previously published in another thesis, subsequently converted to a publication, and then included in your thesis** without significant alterations to the original.

Information on the thesis format, commonly asked questions, and the site for uploading your completed thesis can be found at: http://www.grad.uci.edu/academics/degree-completion/electronic-instructions.html.

c. Dissertation examination format: The dissertation examination includes a public MBB seminar, arranged by the student at a time when all members of his or her committee can attend. The public seminar, including a discussion of questions from the audience, should be approximately 60 minutes in duration. This is followed by a private, closed session with your thesis committee who may ask you additional questions and provide comments on the work. They may also provide specific corrections or suggestions for editing your written thesis before it is submitted in final form to the university.

d. Other defense and dissertation information: The deadlines for "filing" for the degree are published each year, and you must prepare to meet them in good time. These dates are posted in the MBB Office and are available online on the Graduate Division website. The submission process requires preparation of a penultimate draft for approval by the dissertation committee; this should be **submitted to the committee no less than two weeks prior to a scheduled dissertation defense**. Many faculty members prefer to read a printed copy of your thesis in order to provide written corrections and you should provide them with this hard copy. Corrections to the thesis must be completed to accommodate the committee's comments and the final thesis submitted online at the Graduate Division website. The electronic version of the dissertation must follow all formatting requirements (https://etd.lib.uci.edu/electronic/tdmanuale) and be submitted as a single electronic Portable Document Format (PDF) file (see https://www.grad.uci.edu/academics/degree-completion/instructions-for-electronic-submission.php). *It is the responsibility of the student to ensure that the dissertation appears as originally intended when it is accessed or printed*. Bound copies of the dissertation are given to the Departmental office, your research director, and you. Three copies are paid for by the Department and additional copies must be prepaid with binding arranged through the office.

5. Teaching Requirements:

Service as a teaching assistant (TA) for at least two quarters at 50% is a required part of graduate student training in MBB. It is highly recommended to fulfill this requirement within the first or second year of study in MBB (for CMB students, this would be the second or third year in the doctoral program). **For MBB direct admit PhD students, first-year students are not eligible to serve as TAs.** However, direct admits may request an exception to serve as TAs in the spring quarter of their first year if TA slots are available. You will be supported by a TA fellowship for the quarters you are required to teach.

A 50% assignment consists of serving as a lab instructor and lecture teaching assistant (2 classes) and maximally requires 20 hours of work a week. Depending on individual faculty mentor funding resources, some students teach more than two quarters at 50% in order to have tuition and fees covered and to earn a graduate stipend.

The ability to communicate effectively in English is critically important to the success of graduate students in all aspects of their academic program. All graduate applicants, except those who have earned an undergraduate degree from an institution at which English was the sole language of instruction according to the World Higher Education Database, are required to demonstrate English proficiency for admissions consideration. The English language proficiency requirement for Teaching Assistants is described at https://ap.uci.edu/ase/teaching-assistant/#TA

English Proficiency Tests Accepted for Graduate Admissions

TOEFL: The TOEFL is administered by the Educational Testing Service (ETS).

Please select institution code 4859 to have your official score sent to UCI.
We do not accept MyBest scores; you must submit all individual test scores.
Results of institutional (non-ETS) administrations of the TOEFL are not acceptable.
We will accept the TOEFL iBT Special Home Edition test. The same minimum score applies.
However, we will NOT accept the TOEFL ITP Plus test for China.
Test results that are two years old or older are not acceptable.
A minimum score of 80 is required on the TOEFL iBT.

IELTS: As an alternative to the TOEFL, you may submit scores from the Academic Modules of the International English Language Testing System (IELTS).

An institutional code is NOT required. Please contact the test center directly where you took the IELTS test and request that your test scores be sent electronically using the IELTS system. All IELTS test centers worldwide are able to send scores electronically to our institution.
UC Irvine Graduate Division only accepts scores submitted electronically by the IELTS test center. No paper Test Report Forms will be accepted.
We will accept the IELTS Indicator test. The same minimum score applies.
Test results that are two years old or older are not acceptable.
IELTS Score Requirements for Admission Consideration: An overall minimum score of 7 for admission, with a score of no less than 6 on any individual module.

Limitations and Remediation

If the head of a unit or appropriate delegate finds sufficient grounds to believe that any graduate student does not have English proficiency adequate for the student to maintain satisfactory academic progress, they must require the student to undertake a remediation process, in consultation with the Program in Global Languages & Communication and approved by the student's academic unit, in order to maintain satisfactory academic progress. Such a determination should be made on the grounds of inadequate proficiency alone (as indicated in student evaluations, faculty observations, faculty evaluations or the like). This remediation process will be required regardless of how the student was initially certified for English proficiency (that is, regardless of earning an undergraduate degree at an institution where English was the sole language of instruction or by achieving a passing score on one of the tests noted above).

The graduate program requesting consultation regarding a remediation process for a student who is believed to not have spoken English proficiency adequate to maintain satisfactory academic progress will email TOEP@uci.edu with the following information: (1) the student's information (name, UCI ID number, email address), and (2) the contact information (email) of the delegate from the student's home department who is requesting the consultation and/or overseeing the remediation process for the student. The staff in the Program in Global Languages and Communication will contact the student to set up an appointment during which the student will meet with an Academic Coordinator in the GLC Program who will review, discuss, and/or assess the student's oral English proficiency. After meeting with the student, the GLC Program will provide a recommendation for a remediation plan to the delegate from the department.

A condition of all fellowships and Teaching Assistant/Associate and Graduate Student Researcher appointments is that the student maintain satisfactory academic progress, be continuously enrolled as a full-time graduate student, and meet all other university criteria (including but not limited to adequate English language competency for Teaching Assistant or Teaching Associate appointments) to receive

campus-based funding. Continued employment is also contingent upon satisfactory performance as a Teaching Assistant/Associate or Graduate Student Researcher.

Expectations for TA Service:

1. Students are expected to check for **scheduling conflicts** before they sign the teaching contract and are expected to attend all class lectures and proctor all student exams unless explicitly told otherwise by the instructor. *There should not be an overlap between the two TA assignments, or between a TA assignment and an enrolled graduate course. TAs may not miss lectures or exams for scientific meetings or other travel without the express permission of the instructor*.
2. Students are expected to complete grading for the course and other routine work in a timely fashion. Students are not expected to grade the class exams in the absence of a key provided by the instructor. Graduate student TAs may be asked to write a few questions that appear on class exams but are not responsible for writing the full exam.
3. Although the amount of work may vary week to week, the maximum time devoted to teaching should average out to 10 hours per week per class (20 hours/week for a 50% TA assignment).

6. The Master's Degree: Doctoral students who complete the advancement to candidacy exam (ATC) have met the requirements for the plan II MS degree. These students have completed the necessary coursework and the ATC exam is considered successful completion of the plan II comprehensive exam. *After the advancement to candidacy exam, MBB students may complete paperwork for a master's degree.* Application for this degree must be approved by the graduate mentor or graduate advisor.

Students who pass the ATC exam: Students who pass the ATC exam and continue with their graduate studies are subsequently considered "doctoral" or "dissertation status" students (regardless of whether they formally file paperwork for the master's degree). *It is not necessary to file for a formal master's degree to complete work for a doctorate in MBB.*

Students who wish to leave the program early or who fail the ATC exam: Those students who do not pass the ATC or decide not to continue in the doctoral program may receive "terminal" Master's degrees if approved by an exam committee.

7. RESOURCES, REGULATIONS AND ADMINISTRATIVE PROCESSES:

7-1. Communicating with your graduate mentor: Although most graduate students complete their research under the supervision of a mentor without significant misunderstandings or disputes, serious disagreements can arise if you and your advisor do not effectively communicate. There are several strategies to use to proactively ensure that you share well-defined and consistent expectations for graduate work. While individual student-mentor styles vary, here are some things that you should keep in mind to minimize misunderstandings. A good rule of thumb is that the more transparent and organized you are, the less likely you are to encounter misunderstandings with your mentor.

7-1a. Time away from lab: Keep in mind that your role as a graduate student encompasses both paid **employment** (for 40 hours as a research assistant and/or teaching assistant *and* **scholarship** (work at the bench, journal clubs, seminars, data analysis, writing papers). These roles intersect but are not always completely overlapping: *your scholarship is expected to extend beyond the effort of your employment*. Your graduate stipend is payment for *employment* as a teaching assistant or researcher. Just as you could not miss a shift at Starbucks or not show up to your job as a lifeguard, you must demonstrate that you are working on research and teaching for the hours that you are paid. For example, a 50% TA assignment means that you can have a reasonable expectation of spending ~20 hours a week on these duties and spend the remainder of your time doing research. During the week and working hours, it is a good idea to make certain that your advisor and lab-mates knows where you are if you are away from the lab because of illness, teaching or seminars.

The UC academic personnel manual stipulates that graduate students do not accrue vacation time or sick leave during intervals when the university pays them. Work with your advisor and the class instructors for reasonable accommodations.

- **Serious illness:** While no one would insist that someone who is *gravely ill* needs to complete scheduled teaching or research duties, *these hours need to be covered*. If you cannot complete your TA assignment, you must arrange with the class instructor and other class TAs so that the work is covered. It is also important to repay any time served by another TA by subbing for that TA later in the quarter so the net hours for you and the other TA balance out. For students employed as RAs, you should make certain that one of your lab-mates stabilizes any on-going samples and make up lost time once you are recovered.
- **Scientific meetings:** If you are supported by a TA-ship, you must not miss lectures or exams for scientific meetings or other academic travel without the express permission of the course instructor. Given that your stipend is provided by your employment as a TA, you should not expect that the instructor can organize an accommodation for your proposed absence. If you are teaching a lab or discussion section that can potentially be traded with other class TAs, you can attempt to organize this with the other TAs. Make certain that the course instructor knows of your plans and approves of them before your organize travel to a meeting.
- **Vacation time:** Many graduate students begin their careers by thinking of all academic term breaks as "vacation" because this was true during their undergraduate years. As both a graduate student and employee, this is no longer the case. The university is officially closed for a long holiday in December; other university holidays occur throughout the year and are listed on the registrar's calendar. On these days, UC offices are closed. You should balance your need for a break with other demands on your time. On holidays, you may choose to do a complicated experiment in the lab (since there are no scheduled classes or seminars), work on data analysis, reading, writing, or grading (possibly at home) or take a day off to give your brain a break and do laundry or visit with friends. Since experimental organisms and cells need to be maintained at all time, labs never completely shut down. All times when the university is open, you are expected to be at work. Any leave when the university is open must be negotiated with your advisor on a case-by-case basis.

7-1b. Weekly updates on research progress:
It is often helpful for you to take some time to briefly record the following information at the beginning of each week in a 1-2 page word document.

1. What did you do last week?

[*I did a western blot on cell lysates from kinase inhibitor-treated and control samples, stained other samples for flow cytometry and digested 20 minipreps to identify three plasmids which had my insert in the correct orientatio*n.]

[*I set up crystallization trays with the purified wild type and mutant protein samples, ran an enzyme assay with the candidate inhibitors and worked on phasing my other diffraction data.*]

2. What worked and what is your conclusion from this data?

[*My western blot data indicates that treatment with the kinase inhibitor does not reduce protein phosphorylation, although I would like to repeat this experiment.*]

[*One of the candidate inhibitors (number 7) appears to block accumulation of product in my enzyme assays. I need to repeat this to confirm and try other inhibitor concentrations.*]

3. What didn't work and what will you try next?

[*My antibody staining didn't work; my positive control was negative so I will try a longer incubation with a fresh set of samples to make certain that the antibody works*.]

[*I haven't been able to phase my diffraction data with molecular replacement; I think I need to introduce heavy atoms into my crystal*.]

4. What papers have you read and what interesting information have you learned?

[*A 2017 study by Smith shows that the kinase inhibitor is not effective in CHO cells*.]

[*A 2005 mass spectrometry paper by Jones identifies my protein as binding to a novel chaperone complex*.]

Importantly, this weekly document is distinct from your detailed research notebook and provides an on-going narrative and summary of your efforts each week. You may wish to email this document to your advisor or print it out for a weekly one-on-one meeting. By filing these weekly reports in sequence, you have a clear record of your research activity over time. This is useful for gathering data for writing papers or deciding with your advisor that an approach or reagent is not going to work as planned.

7-1c. Meetings: You should be having an **annual meeting with a committee of faculty members** who evaluate your project in collaboration with your specific faculty mentor. After you officially join your advisor's lab in MBB, you must have a pre-advancement committee meeting (no later than the end of the summer following your second year at UCI), pass an advancement to candidacy exam (by the end of your third year at UCI (ninth academic quarter) and convene (at a minimum) annual thesis committee meetings on or near the anniversary of your advancement exam. *It is often the case that students who are having difficulties with their project and/or advisor are reluctant to schedule a regular thesis committee meeting. The meeting should not be put off if you don't have "enough data" – having problems with the research project and/or communication with your mentor are key reasons to schedule a committee meeting to get a larger group of scientists thinking about your project*. If your committee perceives that your research project and/or mentoring relationship is problematic, they may request that you schedule another meeting in 3-6 months. This gives them greater insight and oversight for assisting you with your graduate work.

7-1d. Difficulties communicating with your mentor:

You may begin by talking with the **MBB graduate advisor** (Mei Kong), the Biological Sciences **Associate Dean for Graduate Studies** (Craig Walsh) or the **Graduate Division counselor** (Phong Luong) to plan how to approach resolving your specific problem. Problems that require higher level mediation may involve the assistance of the offices of the Ombudsman and/or OEOD at UC Irvine. The **Office of the Ombudsman** is a confidential, impartial, informal, and independent resource to talk about concerns, explore options, and make informed decisions to reach equitable and fair resolutions. The **UCI Office of Equal Opportunity and Diversity** (OEOD) is responsible for compliance with federal and state laws and University policies and procedures regarding discrimination, retaliation, sexual harassment, and sex offenses. OEOD works to promote and integrate the principles of equal opportunity, affirmative action, nondiscrimination, and inclusive excellence at UCI.

7-2. Annual Individual Development Plans (IDPs): are a formalized planning process that identifies the student's general research goals, professional development and career objectives and also serves as a communication tool between students and their faculty mentors. *All MBB-affiliated graduate students in the doctoral program are required to complete an IDP annually (preferably in the fall)*. After discussing it with your advisor (who should sign it), please give it to the Student Affairs Coordinator

(Lissette Umanzor) to include in your graduate file. The UCI Charlie Dunlop School of Biological Sciences IDP form is available from Lissette Umanzor.

7-3. UCI-GPS-BIOMED: The NIH-BEST (Broadening Experiences in Scientific Training) grant supports UCI-GPS-BIOMED, a part of the campus-wide UCI-GPS program (UC Irvine Graduate Professional Success). GPS-BIOMED aims to better prepare graduate students and postdocs for a variety of careers within the biomedical research workforce, and empower trainees to become skilled scientists, and polished professionals (see http://gps.bio.uci.edu/).

Although most GPS-BIOMED events and activities are open to all graduate students and postdocs across campus, GPS-BIOMED members receive the following benefits:

- Priority access to career & networking nights featuring prominent Ph. D. Alumni
- Free enrollment in UCI Continuing Education Courses (a $700 value)
- Priority and reduced cost of admission to the SciPhD Business of Science Program
- Priority enrollment in Science Communication Skills taught by Sandra Tsing Loh
- Exclusive enrollment in GPS-BIOMED Excellence in Science Communication Program
- Priority enrollment in Teaching Apprenticeship in STEM (TAP-STEM)
- Internship & Job Search Advising
- Exclusive access to the GPS-BIOMED LinkedIn Group
- Exclusive access to our 1-on-1 Alumni Mentor Program
- Reduced cost of admission to local professional group networking mixers
- NIH-BEST Professional Development Certificate (can be listed on resumes and LinkedIn)

To encourage participation, we assign Professional Development (PD) credit to each event or activity that we sponsor. Our members accumulate credit by attending GPS-BIOMED events granting further access to higher level activities (asterisk activities listed above). After accumulating at least 20 credits, members receive a NIH-BEST Professional Development Certificate of Completion that can be shared with employers.

Students often mistakenly believe that University Extension Courses (DCE, Division of Continuing Education) courses count towards academic credit for the degree; this is not the case. GPS-STEM program members receive professional development credits and may enroll into subsidized fee-based DCE courses through GPS-STEM. Professional development credits should not be confused with academic credits as specified in the UCI Graduate Policies and Procedures and defined on the GPS-STEM website. Moreover, no transfer of credits is allowed for courses taken in University Extension as described in the UCI Graduate Policies and Procedures guidelines.

7-4. Required online training: for graduate students to be compliant with university regulations you will need to complete online training (see http://www.uclc.uci.edu/). Topics may include (but are not limited to): lab safety, sexual harassment prevention, violence against women, ethics, and computer safety. *In serious cases where mandatory training isn't completed in a timely fashion, the university may choose to withhold pay until the certifications are completed*. Students must also complete MMG250 Responsible Conduct of Research (see first year program).

7-5. Stipends and enrollment: You must enroll in your courses each quarter though Webreg: (https://www.reg.uci.edu/registrar/soc/webreg.html). You are expected to enroll full time (**minimum 12 units**) each quarter. Please enroll as early as possible. The Department will submit information for fee payment. *A late fee of $50, increasing to $100, is assessed if you have not enrolled by the SECOND week of the quarter*. You must pay any late fees; the Department is not responsible. Moreover, non-student status initiates federal deductions from your paycheck and affects your eligibility for campus housing. Every student receives a monthly stipend from the Department. The stipends are set by the

Department each year and carry with them the expectation that you will spend 100% of your time at your studies and research. Stipends are paid via UCI payroll or Graduate Division, depending on the funding source. *Some support mechanisms pay in advance and others only pay once service is complete (payment in arrears). Transitions between these mechanisms and funding sources can be complex; please make certain that you are being paid and if there is a problem, please speak to the MBB MSO (Bessy Varela)*.

For US citizens who are **non-residents of California**, you should act to become legal residents of the state by the beginning of the second year. This reduces the tuition fees considerably, to everyone's benefit. The change of residency must be recorded in the Registrar's Office BEFORE the fee payment deadline in the Fall quarter of your second year. Documentation will be required, and you may call the Registrar's Office at 4-6124 for details. At the same time, our office should be informed of the change.

For **foreign students**, it is current policy that tuition is reduced to the California resident rate for three years after they advance to candidacy (see below). This reduction in rate is a very important saving for the grant that is paying the stipend, and therefore, advancement to candidacy is a goal to be achieved at the normal time (at the end of the third year) or earlier. The reduction in rate continues for three years thereafter; the original rate is then restored. Foreign students who have previously earned a MS degree in a separate program (such as MSBT) are not eligible for this fee reduction because the University of California does not consider them new students.

7-6. Financial aid: Graduate students are guaranteed five years of stipend support. Stipends may be from teaching assistantships, research funds from the graduate mentor's funding, NIH or other Training Grants or individual fellowships awarded to the graduate student.

- **Traineeships:** Several Traineeships on a variety of NIH or other Training Grants are available. Many professors are listed as members of one or more training grants, on which their students are eligible for support. Directors of the various Training Grants announce notice of openings to the faculty members, and students' sponsors make nominations of students. Appointment to a Traineeship is an honor, and such appointments may come with special obligations such as particular or additional coursework, or attendance at training grant meetings at which trainees present work in progress. *To be compliant with some sources of stipend support, please fill out the Free Application for Federal Student Aid (FAFSA) annually*.

- **Campus dissertation fellowships:** These are designed for students in the last quarter of their degree work. They are meant to free the student from other obligations, such as teaching that may interfere with timely completion of the dissertation. These fellowships are competitive and are announced once or twice each year by the Graduate Advisor.

- **Travel assistance:** Travel awards are available that provide modest funds to support of travel to professional meetings for students to present their research. Travel awards are available from various sources including the Charlie Dunlop School of Biological Sciences and NIH Training Grants. In addition, dissertation directors often have funds in their research grants to provide for travel to meetings or to other institutions for experimental work. Requests for graduate travel awards should be made to the Associate Dean for Graduate Studies through the MBB department Student Affairs Coordinator (Lissette Umanzor) and must include information about the meeting, a copy of the abstract, and a description of the type of research presentation.

- **Other fellowships:** UC and national fellowship programs provide support for graduate study to select applicants. The student may take initiative in obtaining these awards, and the Graduate Advisor will attempt to provide information about them as it appears.

7-7. Mechanism for direct admission applications: Students who apply to study for a direct admission MS or PhD degree cannot use a prior unsuccessful application to a structured program (e.g., MSBT or CMB) as their Slate application. To apply to for direct admission, the student candidate should review their undergraduate transcript and other information (TOEFL score, research experience) and if the dossier is appropriate, the potential mentor may request that the MBB graduate advisor contact Graduate division to open a dedicated application form for the student in the Slate system. The applicant will be emailed a link to use to apply for direct admission. Applicants should meet Graduate Division requirements, such as a GPA equal or greater than a 3.0. For otherwise strong applicants with a lower GPA and a compelling explanation, the graduate advisor may write a letter to Graduate Division to petition an exemption to this requirement.

7-8. Office resources: Cecilia Arceo in the MBB office can assist you with booking rooms, projectors, or laptop computers or with obtaining office supplies for teaching or research. The MBB Office has a fax machine that you may use for legitimate business; however, the fax may not be used for personal faxes. Please ask staff to instruct you in its use. The office photocopier is for faculty and staff use only.

7-9. Planned leave of absence:

Academic leave of absence: Graduate students may encounter serious personal or family problems that necessitate a formal leave of absence. The Graduate Advisor and Associate Dean for Graduate Studies can work with Graduate Division to organize this leave. Graduate Division does not count the time spent on a Leave of Absence (up to three quarters) in a student's time to degree calculation. This essentially stops the academic clock for up to a full academic year. *Please be aware that your advisor cannot reserve a particular project or funding source for you because both are time-sensitive activities*.

Paid Leave For Childbirth: The university's contract with the UAW provides Graduate Student Researchers and salaried TAs appointed for a minimum of 25% for the quarter up to six weeks paid leave for childbirth. *MBB has a lactation room located on the first floor of McGaugh Hall*.

There's a form for that!

The Student Affairs Coordinator (Lissette Umanzor) can direct you to all required forms and you should return them to her with appropriate signatures for inclusion in your academic file. Please obtain forms ***prior to meetings*** *with faculty to ensure timely filing of required signed documents.*

Gateway agreement: Your advisor must complete a transfer agreement with the MBB administration for your official affiliation with the department. This paperwork formalizes the commitment to your mentoring and support. You do not participate in this paperwork.

Preliminary exam: To join MBB, you must pass a first-year examination administered by the gateway program that you entered through. *Students who enter by direct admission to MBB must complete a similar format preliminary exam after one year as a graduate student*. Paperwork is transferred from the gateway program or filed by you and your advisor (direct admit) and is maintained in your MBB file.

Annual Individual Development Plans: IDPs are a formalized planning process to identify your general research goals, professional development, and career objectives in conjunction with your graduate mentor. MBB and graduate division require annual IDPs, as do many fellowship programs. You should complete the UCI Charlie Dunlop School of Biological Sciences IDP plan annually (preferably in the fall) with your advisor. Please give the signed IDP to Lissette Umanzor to put in your file. The UCI School of Biological Sciences IDP form is available from Lissette Umanzor.

Pre-advancement Exam: Your committee may provide recommendations and must sign a form to certify that you have completed this requirement. Lissette Umanzor can give you this form.

Ph.D Form I (Advancement to Candidacy Exam): Your committee will provide recommendations and evaluate your proposal, presentation and preliminary data as adequate or inadequate. This form can be found on the Graduate Division website: https://www.grad.uci.edu/academics/advancement-to-candidacy.php.

Advancement to Candidacy Final Report for the Master's Degree Comprehensive form: You may choose to apply for a Master's Degree upon completion of your advancement exam (see page 13) although it is not necessary to apply for a master's degree to continue your dissertation studies. This form is located at https://www.grad.uci.edu/forms/current-student/Adv_to_Candidacy_Masters.docx.

Graduate Student Annual Report: The (GSAR) should be filed each year after your thesis committee meeting. It contains specific recommendations made by your committee and an evaluation of whether your progress is sufficient or insufficient and is signed by your committee members. *If your committee is concerned with some aspect of your project, you may be asked to have more frequent meetings.* Lissette Umanzor can give you this form.

GSAR Final Defense Form: Your committee agrees that you are ready to prepare your written thesis for defense*. You may not schedule the defense seminar until a draft of your thesis is approved by your committee*. Lissette Umanzor can give you this form.

A **PhD Dissertation submission checklist** for electronic filing of your thesis can be found at https://www.grad.uci.edu/forms/current-student/Phd_Dissertation_Checklist.docx

PhD Form II: This is signed after your thesis committee agrees that you passed the private portion of your oral defense https://www.grad.uci.edu/forms/current-student/PhD_Form_II.docx. You may also have the committee members sign a title page for incorporation into your final revised thesis for submission.

MBB Graduate Program Learning Outcomes (PLOs)

I. Program Overview (MBB Ph.D. Program)

Students pursuing the PhD Degree may enter the department from one of three gateway programs or by direct admission sponsored by an affiliated faculty member. The Cellular and Molecular Biology (CMB), Mathematical and Computational Biology (MCB), and the Interdepartmental Neurosciences Program (INP) gateway programs sponsor first-year graduate training prior to student affiliation with a specific department that confers the graduate degree. Gateway students must complete all gateway program requirements before transferring into the departmental doctoral program, including coursework, rotations, and a course in the responsible conduct of research.

MBB departmental degree requirements include: (1) completion of relevant graduate-level classes; (2) service as a teaching assistant for 2 quarters at 50%; (3) development and completion of a successful thesis research project; (4) meetings with faculty committees, including pre-advancement and advancement examinations and annual thesis committee meetings; (5) participation in research in progress talks and the departmental retreat; (6) preparation and presentation of the dissertation.

1. Required Coursework:

a) First year graduate students must enroll in a minimum of 12 units each quarter to be considered a full-time student. *Gateway students* must carry out a research rotation and take a didactic class each quarter. *Direct admission students* must take an elective class each quarter and begin research under the sponsorship of their advisor (so do not complete rotations). Specific graduate courses may vary in different gateway programs and within gateway program tracks (e.g., Structural Biology or Microbiology and Immunology). All first-year students must complete the graduate fundamentals program which covers laboratory safety, the responsible conduct of research and other required training. Both gateway and direct admission students must complete a general knowledge preliminary examination before matriculating as a second-year student. In addition, students must participate in the TA Professional Development Program (www.tltc.uci.edu/taTraining) before fall quarter of their second year so they are eligible to serve as teaching assistants.

b) In the second year and beyond, students must also enroll in a minimum of 12 units per quarter. Students must participate in the MBB departmental seminar (Mol Bio 201) and Research in Progress (Mol Bio 229) every quarter in addition to carrying out research under the direction of their mentor. Students must complete one 4-credit elective each year; individual coursework is selected to best meet their academic and research objectives for topic area and required analytical skills. The graduate handbook lists approved electives and students may petition the Graduate Advisor to take additional classes in programming, statistics, chemistry, and biomedical engineering, as required by a specific research training trajectory. Students are also encouraged to participate in relevant journal clubs and to attend appropriate seminars in other departments.

2. Teaching requirement: MBB students are required to complete 2 quarters of a 50% TA appointment. A 50% TA appointment corresponds to 20 hours per week over the course of the quarter. Typically, students are required to fulfill their teaching obligations during their second and third years. Some students, particularly those on training grants, may do 2 quarters at 25% TA in place of 1 quarter at 50%.

3. Thesis research: Students typically join the department at the start of their second year in graduate school, the first year having been sponsored by a gateway program. During a student's second year they will work with their advisor to identify an interesting, tractable research problem, which will result in a thesis over the following three to five-year period. Over the next several years the student will work

towards (1) developing the knowledge, technical, and critical thinking skills necessary to successfully complete the proposed project; (2) gathering and analyzing the data necessary to complete the proposed project; (3) gaining the scientific communication skills that allow them to effectively convey the results of their findings in both oral presentations at informal and formal meetings; and in written documents in the form of abstracts, papers, and grant applications. This work will be guided by the research mentor with the assistance of the advancement and thesis committees.

4. Meetings with Faculty Committees: Students are required to meet with faculty committees at key points in the Ph.D. program.

a) Pre-advancement examination: MBB students are required to complete a pre-advancement exam *no later than the end of the summer following their second year at UCI*. Students should prepare a brief 2-5-page document summarizing their data and future directions that should be submitted to the pre-advancement committee at least a week in advance of the scheduled exam. The oral presentation should consist of relevant background information and a hypothesis, preliminary data, and a plan for future directions. The pre-advancement committee should be composed of the student's graduate mentor and at least two other faculty members, with a majority of the committee being MBB faculty.

b) Advancement to Candidacy Examination: The ATC Exam is a requirement of the UCI Academic Senate. Students must write and defend a proposal for their thesis work that summarizes their preliminary data and gives a solid plan for the remainder of the dissertation. *The normative time to complete the ATC exam is by the end of the third year (ninth academic quarter)*. Students who have not completed the ATC exam by the beginning of the eleventh quarter are considered not to be making satisfactory progress and may be placed on Conditional Academic Status. During the oral portion of the exam, the committee evaluates whether the student has the ability to formulate questions on important biological issues and the technical expertise to conduct proposed studies and to analyze their data. The student may be asked to discuss experimental design, required controls for an experiment, and possible artifacts or caveats. They will be expected to place the significance of the research project in a broad context and demonstrate in-depth knowledge of the discipline in which they are working. Advancement to candidacy represents the fulfillment of all requirements except continuing courses and a thesis. It is therefore contingent on having passed all courses with a grade of B or better. If courses have not been passed satisfactorily, the first-year examination or remedial work must be cited in evidence of having gained additional competence in the area.

a) Annual thesis committee meetings: Students who have completed the ATC exam are required to meet with their Thesis Committee at least once a year. These meeting provide the student with feedback on their progress and advice on problematic techniques or research goals so that the research plan can be adjusted as needed. Students are required to submit a ~3-page Progress Report, and to make an oral presentation (with slides) of their research progress and future plans. After each meeting, the student will provide a written summary of the input obtained from the committee.

5. Professional Development:

a) Oral presentation skills: All graduate students present a Research in Progress (RIP) talk once a year. The format of the talk is 20-25 minutes for the presentation and ~5 minutes for a Question & Answer exchange. Students are also expected to present their work in poster format at the yearly departmental retreat.

b) Pedagogy training: Students may participate in a variety of training activities available at the Division of Teaching and Learning or through the GPS-STEM program.

c) Leadership training: Graduate students are encouraged to attend leadership training workshops available through the UCI GPS-STEM program.

6. Thesis Defense: The Thesis Defense is a requirement of the UCI Academic Senate. Students must submit a written Ph.D. dissertation to their thesis committee and defend their Thesis in a formal 1-hour

seminar that is open to the public. This is followed by a closed committee meeting. It is expected that a student receiving a Ph.D. in MBB will be able to present and describe a significant body of work that they have been primarily responsible for, with regard to the formulation of the experiments, the acquisition and interpretation of the data, and the writing of a manuscript(s). It is also expected that this work will constitute a novel contribution to the body of scientific knowledge, suitable for publication as a research article in one or more peer-reviewed journals. Obviously, the clearest way to demonstrate that this goal has been achieved is for the student to have one or more first-author or co-first author papers published or in press at the time of defense. However, the thesis committee may in some cases approve the defense if the work is clearly of publication quality, even if it has not yet been published. The thesis committee may also decide that substantial contributions to two or more non-first author manuscripts meet the requirements towards a Ph.D. degree. The normative time for completion of the PhD is five years, and the maximum time permitted is seven years.

II. Action Plan for Program Learning Outcomes

PLO1: Core Knowledge

- Demonstrate a basic knowledge of central concepts in the biological sciences.
- Understand the current concepts in molecular biology and biochemistry.
- Demonstrate knowledge of a specialized discipline such as structural biology, biophysics, microbiology, immunology, or cancer biology sufficient to carry out substantive independent research.

PLO2: Research Methods and Analysis

- Read and critically evaluate the scientific literature.
- Formulate hypotheses based on current concepts in the field.
- Design, conduct, and interpret their own research projects.
- Understand the range of tools appropriate for research in their sub-field.
- Understand and follow research ethics.

PLO3: Pedagogy:

- Communicate effectively to large and small groups in pedagogical settings including teaching, research seminar and other formats.
- Identify and effectively deploy suitable technologies for use in all aspects of instruction.

PLO4: Scholarly Communication:

- Review and discuss relevant literature and their significance.
- Publish research results in peer-reviewed publications and in a dissertation.
- communicate research results effectively through oral presentations at scientific seminars, conferences, and other venues.
- Make clear and cogent oral presentations, including effective use of technology.

PLO5: Professionalism

- Write compelling abstracts describing their research for consideration at research conferences.
- Prepare oral presentations suitable for presentation at a research conference.
- Make effective contributions to research teams and learning seminars.
- Make effective contributions to department, university, community, and professional service.
- Mentor junior researchers (e.g., undergraduates, beginning graduate students).

PLO6: Independent Research

- Develop their own research projects that meet high standards of theoretical and methodological rigor with lasting impact.
- Produce scholarship that is comparable in scope and format to articles that appear in leading peer-reviewed journals in molecular and biomedical sciences.
- Supervise junior researchers (e.g., high school students, undergraduates, beginning graduate students) effectively.

MBB Graduate student checklist

Year 1 in MBB (year 2 in graduate program at UCI)

- ☐ Sign up for a relevant elective class after consultation with your advisor (1 per year until the last year of your graduate studies). The class should be relevant to your graduate research.

Complete an individual development plan with your advisor and have him/her sign it. File this plan with the Student Affairs Coordinator (Lissette Umanzor).

- ☐ Complete UCI TA training so that you are approved to TA for MBB (once a year prior to fall quarter)
- ☐ Complete your TA requirement (2 quarters 50% TA)
- ☐ Participate in presenting and attending MBB research in progress (RIP) talks (enroll in Mol Bio 229 to get class credit for participation in the RIP series)
- ☐ Present your pre-advancement exam by the end of your second year (file **form** of completion with faculty signatures with the Student Affairs Coordinator, Lissette Umanzor)

Year 2 in MBB (year 3 in graduate program at UCI)

- ☐ Complete any TA requirements not fulfilled in year 2 (see above)
- ☐ Sign up for a relevant elective class after consultation with your advisor
- ☐ Complete an individual development plan (IDP) with your advisor and have him/her sign it. File this plan with the Student Affairs Coordinator, Lissette Umanzor. This is an annual requirement.
- ☐ Participate in presenting and attending research in progress (RIP) talks
- ☐ Complete your advancement to candidacy exam by the end of your third year (absolutely by fall quarter of fourth year). File **form** with committee signatures with the Student Affairs Coordinator, Lissette Umanzor.

Years 3-6 in MBB (years 4-7 in graduate program at UCI)

- ☐ Hold **annual or semi-annual committee** meetings to present and discuss your data. File the appropriate **form** with the Student Affairs Coordinator (Lissette Umanzor) to document completion of this requirement.
- ☐ Complete an annual individual development plan with your advisor and file it with the Student Affairs Coordinator (Lissette Umanzor). This is an annual requirement.
- ☐ Participate in presenting (year 4) and attending (all years) research in progress (RIP) talks
- ☐ Collect data, write papers, and attend meetings for scientific development
- ☐ Participate in the GPS-BEST program for professional development

Completion of your doctoral work (before the end of year 7)

- ☐ Prior to writing up your formal dissertation, you should have **a "green light" committee meeting** to verify that your advisor and committee agree that you have completed sufficient work for your dissertation. Have your advisor and committee members sign the appropriate **forms** (from the Student Affairs Coordinator, Lissette Umanzor) and file them with her.
- ☐ Use the green light meeting as an opportunity to discuss your future professional plans with your committee. You may want to give them copies of your CV or cover letters that you have drafted seeking post-graduate employment for them to comment on.
- ☐ Write your dissertation. See http://special.lib.uci.edu/dissertations/paper/td1.html for specific requirements and information on copyrights and formatting.
- ☐ **Important:** A nearly complete draft of your dissertation must be approved as adequate by your thesis committee prior to scheduling the formal defense. The committee needs inform the Student Affairs Coordinator (Lissette Umanzor) and the graduate advisor that they approve the thesis for your defense.
- ☐ Schedule and hold your defense. A public presentation of your work is followed by a private meeting with your committee.
- ☐ Complete any revisions to your dissertation and file it by the appropriate deadline.

MBB Graduate advisor checklist

Year 1 in MBB (year 2 in graduate program at UCI)

- ☐ Your student must sign up for a relevant elective class after consultation with you (1 per year required until the last year of graduate studies).
- ☐ Your student should complete an individual development plan (IDP) in collaboration with you. The form (with your feedback is placed in the student file each year.
- ☐ Your student must complete **TA training and the TA requirement** (2 quarters 50% TA)
- ☐ Your student must participate in presenting and attending MBB research in progress (RIP) talks and enroll in Mol Bio 229 to get credit for the RIP series.
- ☐ Your student must present a pre-advancement exam by the end of the second year (file **form** of completion with faculty signatures with the Student Affairs Coordinator, Lissette Umanzor).

Year 2 in MBB (year 3 in graduate program at UCI)

- ☐ Your student must complete any TA requirements not fulfilled in year 2
- ☐ Your student must sign up for a relevant elective class after consultation with you
- ☐ Your student should complete an individual development plan (IDP) in collaboration with you and file the plan with the Student Affairs Coordinator, Lissette Umanzor). This is an annual requirement.
- ☐ Your student must participate in presenting and attending research in progress (RIP) talks (years 2-4)
- ☐ Your student must complete (pass) the advancement to candidacy exam by the end of the third year (absolutely by fall quarter of fourth year). File **form** with committee signatures with Lissette Umanzor.

Years 3-6 in MBB (years 4-7 in graduate program at UCI)

- ☐ Your student should hold **annual or semi-annual committee** meetings to present and discuss their data and file the appropriate **form** with the Student Affairs Coordinator, Lissette Umanzor to document completion of this requirement.
- ☐ Your student should complete an individual development plan (IDP) in collaboration with you and file the plan with the Student Affairs Coordinator, Lissette Umanzor). This is an annual requirement.
- ☐ Your student should participate in research in progress (RIP) talks (at least through year 4)
- ☐ Your student should collect data, work with you to write papers, and attend meetings for scientific development
- ☐ Your student should participate in the GPS-BEST program to facilitate their professional development

Completion of your doctoral work (before the end of year 7)

- ☐ Prior to writing up a formal dissertation, your student must have **a "green light" committee meeting** to verify that you and the committee agree that they have completed sufficient work for the dissertation. The committee must sign the appropriate forms (from the Student Affairs Coordinator, Lissette Umanzor) and file them with her.
- ☐ The green light meeting is also an opportunity for the student to discuss his/her future professional plans with the committee. The student may present copies of a CV and cover letters for feedback.
- ☐ The student must write a formal dissertation that includes an introduction to the work placed in a larger scientific context, data chapters and a summary and future directions chapter. See http://special.lib.uci.edu/dissertations/paper/td1.html for specific requirements and information on copyrights and formatting.
- ☐ **Important:** A nearly complete draft of the dissertation must be approved as adequate by the thesis committee prior to scheduling the formal defense. A revised thesis must be filed by the appropriate deadline.

UC Irvine Charlie Dunlop School of Biological Sciences

Statement of Professional Conduct

Revised July 2, 2018; updated April 26, 2022, updated September 18, 2024

This document is intended to outline the standards of professional conduct expected of all students, staff, and faculty in the Charlie Dunlop School of Biological Sciences at UC Irvine.

Adherence to these principles of conduct — together with good academic standing — maintains a student's "good standing" status in the School.

As a community, we respect the dignity, individuality, and freedom of each member. At the same time, we strive to be a place where individuals and groups learn with and from each other. Although we acknowledge the difficulties inherent in creating a community of individuals who are different from each other, we remain unwavering in our commitment to both diversity and community in a context of academic excellence. We seek to enable all members of our community to pursue their educational, scholarly, and career interests in an environment that recognizes both the distinctiveness of each person's experience and the common humanity that unites us all, in order to take full educational advantage of the variety of talents, backgrounds, and perspectives of those who live and work here.

In all activities, members of the School are expected to be respectful of the rights and interests of the community and of the others in the community and to be personally honest. They are expected to conduct themselves in a manner compatible with the University's function as an educational institution, and with the rights of all members of the University community to attend, make use of, and enjoy the facilities and benefits of the University without undue interruption or disruption. With their professional conduct, all members of the School are expected to contribute to a School climate in which all community members feel personally safe, listened to, valued, and treated fairly and with respect.

The key principles of professional conduct include:

1. **Professional Competence and Responsibility:** As scholars, we strive to maintain the highest level of competence in our work. Members of the UCI academic community are committed to engage in teaching, learning, research, and community service. This includes communicating in a manner that is respectful and that does not discriminate against or harass others, and treats the ideas, scholarship, and interests of others with respect.
2. **Integrity:** UCI is an institution of learning, research, and scholarship. As members of the academic community, we are responsible for maintaining academic integrity and must accept individual responsibility for their work and actions. Violations of academic integrity will not be tolerated because they devalue the teaching and learning experience for the entire community. Observing basic honesty in one's work, words, ideas, and actions is a principle to which all members of the community are required to subscribe. https://aisc.uci.edu/students/academic-integrity/index.php

3. **Respect for People's Rights and Dignity:** Respect for the rights, privileges, and sensibilities of each member are essential to our academic community. Actions that make the atmosphere intimidating, threatening or hostile to individuals are regarded as serious offenses. Free speech and peaceful assembly are basic requirements of the University as a center of free inquiry and the search of knowledge and insight. These rights involve a concurrent obligation on the part of all members of the University, guests, and visitors to maintain on the campus an atmosphere conducive to scholarly pursuits and to respect the rights of all individuals.
   https://freespeech.uci.edu/

4. **Respect for Diversity:** UCI seeks to promote full inclusion of all members and groups in every aspect of University life. Diversity — on the basis of race, color, national origin, religion, sex, gender, gender expression, gender identity, gender transition status, pregnancy, physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services — is a source of strength for UCI. All participants, visitors, staff, students, faculty, and vendors are to be treated with respect and consideration, valuing a diversity of views and opinions. We do not tolerate any discriminatory and/or harassing behavior based on protected characteristics, and will take immediate action to end and remedy the effects of any hostile environment on affected members of campus community. If a member of the UCI community has concerns of discrimination and/or harassment based on the protected bases, please contact the Office of Equal Opportunity and Diversity (oeod.uci.edu).

5. **Appropriate Sexual Conduct:** UCI does not tolerate sexual violence (dating violence, domestic violence, stalking, and sexual assault, policy linked here) and sexual harassment and has strong policies against this Prohibited Conduct. Pursuant to the Policies linked here, the University has procedures for investigating and resolving allegations of sexual harassment and sexual violence. Additionally, the Office of Equal Opportunity and Diversity can provide an individual who experienced such sexual violence and/or sexual harassment with supportive **measures, such as changes to housing or classes, academic assistance, withdrawals and extensions, financial aid assistance, Visa assistance, safety escorts to walk with on campus, workplace accommodations, and more.** If you have any concerns or questions, please contact the Office of Equal Opportunity and Diversity. Additionally, graduate students are required to complete annual Sexual Violence and Sexual Harassment training within six weeks of their enrollment. If an accommodation for this training is needed, please contact the Office of Equal Opportunity and Diversity (oeod@uci.edu).

6. **Appropriate Use of Electronic Media:** When acting as representatives of the School or interacting on official UCI platforms, students must be responsible in their use of social media and should not violate our professional and academic standards in their social media activities.

Accountability

The School will maintain and publicize a clear structure to address complaints involving professional conduct of graduate students, staff or faculty. Allegations of improper behavior will be treated seriously and promptly. All members of the community are entitled to know what is expected of them, and to a timely, fair, and meaningful evaluation of their contributions. Proper training and orientation will be available to all members of the community.

Observance of University Policies

No set of rules can possibly address all situations that may arise. The School reserves the right to find that other conduct not specified in this Code or UCI policies constitutes a violation of good academic or professional standing. If situations arise that seem ambiguous, please consult with departmental graduate advisors, chairs, the Graduate Office, or the Associate Dean.

The UCI Student Code of Conduct, link here defines behavior expected of all UCI students. It is each student's responsibility to know and comply with the university's Student Code of Conduct. In addition, the violation of the laws of any jurisdiction, whether local, state, federal, or foreign, may subject an individual to disciplinary action.

Responsible Conduct of Research

The Dunlop School of Biological Sciences requires that all doctoral and Master's students complete training in the Responsible Conduct of Research. Students in gateway programs (CMB, INP, MCSB) are required to take MMG 250 Conduct of Research, which prepares scientists for biomedical research and is compliant with the NIH requirements. In addition, any student that is directly admitted Developmental and Cell Biology, Molecular Biology and Biochemistry or Neurobiology and Behavior must complete MMG 250.

The Office of Research Administration offers a Responsible Conduct of Research training module through the UC Learning Center web site (http://www.uclc.uci.edu). The IRC- RA-RCR-2011 module is NSF compliant and is required for NSF GRFP pre-doctoral fellows and graduate students and post-docs conducting research on NSF grants. This training is suitable for graduate students that are not funded by the NIH.

In order to insure compliance with federal and campus training requirement for the Responsible Conduct of Research, the School will adopt the following policies for graduate student training.

1. All doctoral students entering gateway graduate programs (CMB, INP, MCSB) or departments (DCB, MBB, and NBB) will take MMG 250 during the first year of graduate study. In addition, MMG 250 will be required of any EEB student funded by a NIH research grant (RO1) or appointed to an NIH Training Grant (T-32).
2. All doctoral students in EEB will complete the NSF on line RCR training, or take MMG 250 as needed.

3. All M.S. students in the M.S. Biotechnology and M.S. Biotechnology Management will take the UC Learning Center module in the Responsible Conduct of Research during the first year of graduate study.
4. All other M.S. students enrolled in departmental programs must complete the UC Learning Center training module, or MMG 250 (contingent on instructor's approval).

Certification:

I, _____, have read and understand the Statement of Professional Conduct, which outlines the standards of professional conduct expected of graduate students in the Dunlop School of Biological Sciences at UCI.

_____

[signature] [date]

Useful Contacts:

1. Bio Sci Equity Advisor: Monica Daley, (949) 824-6654, madaley@uci.edu
2. UCI Office of Equal Opportunity and Diversity: (949) 824-5594, oeod@uci.edu
3. Associate Dean for Graduate Education: Craig M. Walsh, 949-824-8487, cwalsh@uci.edu
4. UCI Graduate Division: 949-824-4611
5. UCI Office of the Ombudsman: 949-824-7256
6. UC Learning Center for Responsible Conduct of Research training navigate to: https://uc.sumtotal.host/Core/search
7. Campus Assault Resources and Education (CARE) is a primary, confidential source for information, crisis intervention and follow-up support regarding sexual harassment, sexual assault, dating and domestic violence and stalking on the UC Irvine campus. CARE, in collaboration with Waymakers, coordinates accompaniment services for student victims to the police, evidentiary exams and the court system. In addition, individual and group counseling is available to students who are survivors of sexual violence. CARE is available Monday through Friday, 8am to 5pm. Address: G320 Student Center, Irvine, CA 92697 Phone: (949)-824-7273.
8. UC Irvine Police provides a timely response for students, staff, faculty, and members of the community experiencing crimes, including hate crimes and sexual violence. For sex crimes, the police can arrange for medical evidentiary examinations in order to provide admissible evidence when the person reporting the sex offense desires prosecution through the criminal justice system. The UC Irvine Police Department encourages the University community, including students, to immediately contact them by dialing 911 or (949) 824-5223 to report crimes. UCIPD investigations into hate incidents and sex offenses can be coordinated with an OEOD investigation. *Please note that UCIPD can assist in referrals to other police departments in Orange County and can take courtesy reports for other police stations.* The UC Irvine Police Department is available twenty-four hours a day, seven days a week Address: 410 E. Peltason Dr. Irvine, CA 92697 Phone: (949) 824-5223 or 911. http://www.police.uci.edu/

9. Counseling Center offers free and confidential short-term and crisis counseling by licensed mental health providers to all UC Irvine students on an urgent basis, or by appointment. The Counseling Center also offers certain free and confidential psychiatric services. Referrals to off- campus psychotherapeutic and psychiatric providers are also available through the Counseling Center. The Counseling Center is available Monday through Friday, 8am to 5pm. Address: 203 Student Services 1, Irvine, CA, 92697 Phone: (949) 824-6457. For afterhours counseling: For urgent matters, call the main telephone number at (949)824-6457 and select option 2.