

CELL and MOLECULAR BIOLOGY Graduate Program

Student Handbook
2020-21

THE UNIVERSITY OF TEXAS AT AUSTIN

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Welcome!

This handbook has been designed to assist students as they progress through their academic career the Cell and Molecular Biology (CMB) Graduate Program at the University of Texas. We have made every effort to include all pertinent information, but for further information please utilize the resources listed below. This handbook is made available to CMB graduate students to explain important policies of the CMB Graduate Program. The Graduate Catalog is the official record of this University's graduate policies and requirements. **This handbook contains guidelines applicable to the class entering in Fall 2020.** Students who have entered the program at other times should consult the version of the handbook relevant to their entering class.

Responsibilities of a CMB Graduate Student

Students are responsible for understanding the rules and policies that govern their academic degree and are encouraged to use all resources at their disposal to do so. Diligent planning is required to ensure that all milestones, deadlines and requirements of the degree are met. The [Graduate School website](#) is a centralized resource for information on policies, deadlines, and general doctoral degree requirements. Two University catalogs are essential references: The General Information Catalog and The Graduate Catalog. These catalogs are available online at catalog.utexas.edu. The policies and requirements governing your graduate career are dynamic. **You are well advised to stay in frequent contact with the Graduate Advisor and/or the Graduate Program Staff and default to them with any questions.**

Note that the Graduate School requires all graduate students to maintain a cumulative graduate GPA of at least 3.0. If your cumulative GPA falls below 3.0, the Graduate School will place you on academic probation. You will have one semester to raise your cumulative GPA above 3.0 or you will be dismissed from the program.

In addition to the requirements of the Graduate School, the Cell and Molecular Biology Graduate Program has set additional requirements that include:

- Performing required laboratory rotations during the proscribed rotation periods during the first academic year. See *Laboratory Rotations* for additional details about this requirement.
- Attend and actively participate in all courses as defined by the course instructor. (Students may request and be granted accommodations for a documented disability. Please see *Disability Services and Accommodations* for more information.)

Failure to satisfy the degree requirements will result in you not making satisfactory progress toward your degree. In this event, you will be notified in writing by the Graduate Advisor. The letter will include immediate corrective actions necessary to continue making satisfactory progress towards your degree. If you fail to take the corrective actions, the Cell and Molecular Biology GSC Executive Committee will be notified and may then recommend termination from the Cell and Molecular Biology Graduate Program.

The Graduate School

Cell and Molecular (CMB) students are admitted to both the CMB Graduate Program and the Graduate School of The University of Texas at Austin. All graduate degrees are the responsibility of the Graduate School.

The Graduate School includes the Vice President and Dean of the Graduate School and staff, plus about 100 Graduate Studies Committees. The Graduate School can be reached at (512) 471-4511 or GradStudentSvcs@austin.utexas.edu.

Each department or field of study offering a graduate degree has a Graduate Studies Committee (GSC) composed of active assistant professors, associate professors, and full professors (tenured and tenure-track faculty). Each GSC sets policy and supervises its graduate program.

Approximately 30 faculty members from various GSCs, plus six graduate students, serve as representatives in the Graduate Assembly, the legislative body of the Graduate School.

There is also a student organization concerned with issues related to graduate study, called the [Graduate Student Assembly](#) (GSA). Any graduate student is welcome as a member.

The College of Natural Sciences (CNS)

Dr. Paul Goldbart is the Dean of the [College of Natural Sciences](#). The Dean's office is located in W.C. Hogg 3.134 and can be reached at (512) 471-3285 or cnsdean@austin.utexas.edu.

CNS is home to a number of organized research units and twelve academic departments, including Astronomy, Chemistry, Computer Sciences, Human Ecology, Integrative Biology, Marine Science, Mathematics, Molecular Biosciences, Neuroscience, Physics, and Statistics and Scientific Computation.

The Institute for Cellular and Molecular Biology (ICMB)

Founded in 1997, the Institute for Cellular and Molecular Biology (icmb.utexas.edu) is a university-wide unit that supports the Cell and Molecular Biology (CMB), Biochemistry (BCH), and Microbiology (MIC) Graduate Programs. ICMB-affiliated faculty members are from multiple departments within the College of Natural Sciences, the College of Engineering, College of Pharmacy, and the Dell Medical School.

The ICMB is housed administratively within the Department of Molecular Biosciences under the direction of Dr. Jason McLellan. An Executive Committee comprised of the Director, GSC Chairs, Graduate Advisors, Graduate Program Administrator, faculty representatives from different disciplines, and a student representative provide input and oversight

U.S. mailing address:

The University of Texas at Austin
The Institute for Cellular and Molecular Biology
100 E. 24th St.
Austin, TX 78712

Campus mailing address:

ICMB, Mail Code A5000
Phone number: (512) 471-2150
ICMB administrative offices are currently located in NHB 2.606

The Cell and Molecular Biology Graduate Program (CMB)

The [CMB Graduate Program](#) is part of the Institute for Cellular and Molecular Biology (ICMB). The graduate program can be reached at (512) 471-0934.

Campus mailing address:
CMB Graduate Program, A5000

U.S. mailing address:
The University of Texas at Austin
Cell and Molecular Biology Graduate Program
100 E. 24th St.
Austin, TX 78712

Cell and Molecular Biology (CMB) – Graduate Program Administration

CMB Graduate Studies Committee (GSC)

The CMB Graduate Program is administered through an executive committee that represents the approximately 130 faculty members of the CMB Graduate Studies Committee (GSC). These members are drawn from diverse departments, with faculty primarily from Molecular Biosciences, Chemistry, Neuroscience, Nutritional Sciences, Pharmacy, Physics, Biomedical Engineering and Chemical Engineering, and the Dell Medical School.

A list of GSC members is available at utdirect.utexas.edu/apps/ogs/auth/gsc/nlogon/gsc_members.

Graduate Studies Committee Chair: Rick Russell, PhD

rick_russell@cm.utexas.edu | 512-471-1514 | MBB 2.212

The GSC Chair oversees the Graduate Studies Committee, which is a committee of all CMB faculty members. The GSC Chair also chairs the CMB Executive Committee, which generally consists of 16 CMB GSC faculty members. The Executive Committee sets policies concerning academics and requirements for the graduate program.

Graduate Program Advisor for First Year Students: Steve Vokes, PhD

svokes@austin.utexas.edu | 512-232-8359 | MBB 1.312

Graduate Advisor for Continuing Students: Blerta Xhemalce, PhD

b.xhemalce@austin.utexas.edu | MBB

The Graduate Advisors are faculty members appointed by the Dean of the Graduate School to advise Cell and Molecular Biology doctoral students (generally in the sense of clarifying policy or granting exceptions to policy), to monitor their academic progress, and to represent the Graduate School in matters relating to graduate students. In addition to these duties, the first-year advisor assists new graduate students with course selection, track requirements, and laboratory placements. The continuing student advisor supports students beginning in their second year of study.

Graduate Program Administrator: Justine Meccio

justine.meccio@austin.utexas.edu | 512-471-0934 | NHB 2.618

Graduate Coordinator: Yasmin Deosaran

Yasmin.deosaran@austin.utexas.edu | 512-471-0934 | NHB 2.618

The Graduate Administrator and Graduate Coordinator are the staff who handle most of the day-to-day operations of the program. Their responsibilities include responding to inquiries, facilitating degree processes, handling petitions and special requests, monitoring degree progress, student academic employment and fellowships, processing registration, and maintaining graduate student files. In addition, they are available to assist students with other ad-hoc issues or concerns. Most questions

concerning the program can be addressed to the Graduate Administrator and/or Coordinator, who will consult with the Graduate Program Advisor and GSC Chair as necessary. The Graduate Administrator and Coordinator also implement the recruitment and admission process for applicants to the CMB program. They are responsible for event planning, orientation activities, and supporting the administrative needs of new students throughout the first year.

Degrees Offered

The CMB Graduate Program is designed for students seeking a Ph.D.; however, under certain rare circumstances with the consent of the supervisor and Graduate Advisor, a Master of Arts with Thesis may be allowed. Dual degrees are generally not allowed and only under certain circumstances must be approved by the PI, Graduate Advisor and GSC Chair.

Doctor of Philosophy (Ph.D.)

The Ph.D. program prepares students for a career in research by emphasizing scholarship and original research. By the submission of a dissertation, students demonstrate a mature knowledge of the field and that they can design and execute original research.

Requirements for Admission

To be considered for graduate admission to the University of Texas at Austin, candidates must meet the [minimum requirements](#) set by the Graduate School and the CMB Graduate Program. The Cell and Molecular Biology Graduate Program expects applicants to have a degree in CMB or a similar area. Applicants are expected to have successfully completed at least one semester each of cell biology and molecular biology and one year each of calculus, organic chemistry and physics. Additional specialty courses and research experience in cell and molecular biology are highly encouraged. Students with any deficiencies in these areas should remedy them before applying to the program.

The Cell and Molecular Biology Graduate Program only accepts students seeking a Ph.D. Admission is only offered in the fall semester of each academic year. Please see the program website for additional details about admissions requirements and procedures: icmb.utexas.edu/cmb/prospective-students/admission-requirements.

Commitment to Diversity

The Cell and Molecular Biology Graduate Program is committed to providing educational opportunities to students from diverse backgrounds. Students of all backgrounds, and especially students underrepresented in the sciences, are encouraged to apply for admission to the graduate program. In addition to the support from the graduate program, the University of Texas at Austin offers a number of [fellowships](#) to promote graduate study and diversity.

Admission to CMB from Biochemistry (BCH) or Microbiology (MIC) Graduate Programs

The GSC Chair and the Graduate Advisor must approve transfers to the CMB program from BCH or MIC. Approval is on a case-by-case basis and dependent on academic and research performance prior to the transfer request. Transfers for first-year students are typically performed at the end of the summer, upon completion of a full year in the original program. If you are considering changing programs, you should consult with the Graduate Advisor and the Graduate Program Staff at the beginning of deliberations.

Academic Requirements for a Ph.D. in the CMB Graduate Program

- Cumulative GPA of 3.0 or higher
- Completion of the CMB core courses with a grade of at least a B or above
- Completion of Grant Writing Course in the fall of second year
- One or two additional electives required by track or PI
- Continuous membership in a permanent lab (after first-year rotations)
- One semester as a Teaching Assistant (TA) (preferably completed by the end of the fourth year)
 - Note: In order to TA, students must have attended a TA workshop offered at the beginning of each fall and spring semester. Students who have not fulfilled this requirement cannot TA.
- International Students: successful completion of ITA English Language Certification exam and workshop
- Successful completion of Qualifying Exam and admission to candidacy (spring/summer of second year)
- Concurrent enrollment in Dissertation Hours after admittance to candidacy every semester through graduation
- Annual meetings with Dissertation Committee (beginning in the third year through graduation)
- Successful completion of dissertation and final defense

Degree Milestones

The UT Austin Graduate School has set up a web-based system of Milestones that should be achieved during the Ph.D. Students should review these Milestones upon starting the degree program and check them periodically throughout their degree. Students are responsible for ensuring they are on track to complete degree Milestones. The current CMB Graduate Program Degree Milestones are available at gradschool.utexas.edu/academics/milestones.

Progress Towards Degree

All students are expected to make reasonable progress toward the degree. Among other situations, any of the following could be cause for being dropped from the CMB Graduate Program due to failure to progress:

- Core courses not successfully completed by May of second year
- Qualifying Exam not completed by spring of second year
- Admission to Candidacy not initiated by start of third year
- Annual meetings not conducted annually
- Dissertation not completed within three years of admission to candidacy

CMB Track Information

As the faculty of the CMB Graduate Program has a wide range of research interests, the CMB Graduate Program is organized into seven specialized “tracks”:

- Bioinformatics and Computational Biology (BCB)
- Biomolecular Structure and Function (BSF)
- Cell and Developmental Biology (CDB)
- Chemical Biology and Drug Discovery (CBDD)
- Molecular Genetics (MG)

- Neurobiology (N)
- Plant Molecular Biology (PMB)

Tracks in the CMB program are a way to organize a highly diverse program into smaller groups. The purpose of each track is also to designate track specific course requirements and electives. Students often become a member of the track to which their supervising advisor (commonly referred to as Primary Investigator or “PI”) belongs, however this is not required and students may affiliate with whichever track best reflects their interest. All PI’s belong to one primary track, while some are cross-listed in affiliated tracks. Students are advised to consult the Graduate Advisor and their PI about which track aligns best with their research interests. Regardless of the track that is joined, the conferred degree will be in Cell and Molecular Biology.

A track may also specify the courses that are taken as electives. If a student desires to take a course that is not either a CMB core course or one of the approved electives listed for their track, they must get prior, written approval from their PI and Graduate Advisor, or Track Representative.

More detailed information on the tracks, including track membership and track-specific course requirements, can be found on the CMB Graduate Program website at icmb.utexas.edu/cmb/current-students/program-requirements-and-timeline .

Laboratory Rotations

During the first nine months in the program, students perform rotation projects in the laboratories of at least three ICMB-affiliated faculty. These rotations broaden laboratory experience and will help students find the research area and permanent laboratory that best suits them. Students are required to spend at least 20 hours per week working in their rotation lab. At the end of each rotation, the faculty member completes an evaluation of the student’s performance. These evaluations determine whether the student receives credit that semester for research hours.

2020/2021 Laboratory Rotation Schedule

Sep 1, 2020 – Oct 16, 2020	Virtual Rotation (7 weeks)
Oct. 19, 2020 – Dec. 18, 2020	In-person Rotation 1 (9 weeks)
Jan. 4, 2021 – Mar. 12, 2021	In-person Rotation 2 (10 weeks)
Mar. 15, 2021 – May 21, 2021	In-person Rotation 3 (10 weeks)

Note: The above rotation schedule has been revised to include an additional virtual rotation as a result of the COVID-19 pandemic. The 2020/21 rotation schedule and may be subject to additional change based on public health conditions and guidance from the University.

Rotations are arranged through mutual agreement between the student and the faculty member (Principal Investigator or ‘PI’) of the lab in which the rotation is arranged. Students should contact potential rotation supervisors well in advance of the start of each rotation period.

Faculty members must be part of the CMB, BCH or MIC GSCs in order to accept a CMB student for rotation. Changes in an assigned rotation may be made only with permission of the Graduate Program Advisor. It is not an option to remain in a laboratory for longer than the designated rotation period, nor are students permitted or to begin a rotation later than the mandated start date. Failure to participate in or to complete the three rotations may result in a recommendation for termination from the program.

Students should discuss potential funding with PIs when a rotation is being negotiated. It is crucial that students understand how they will be funded should they pursue their Ph.D. in that lab.

Once a PI agrees to accept a student for a rotation, a *Rotation Agreement* form is required to document this. You are responsible for obtaining all required signatures on the *Rotation Agreement* form, including those of the PI and the Graduate Advisor before submitting the completed form to the Graduate Program Staff. The *Rotation Agreement* form is due to the Graduate Program Staff by the start date of the rotation period.

Permanent Laboratories

At the end of a student's final rotation, they will choose which laboratory to work in on a permanent basis. This is done after careful consideration and consultation with the PI of the lab. All students will join a permanent lab after their final rotation ends in May, 2021. ICMB support ends on 5/31/2021 for all students. Subsequent support is the responsibility of the permanent lab (starting on 6/1/2021). It is program policy that first-year students may not be appointed as a Teaching Assistant (TA), therefore, PIs are expected to support their first-year CMB student as a Graduate Research Assistant (GRA) in the summer of 2021.

If students have not made arrangements for a permanent lab by the end of the first nine months in the program, they will be notified that the next six weeks constitute their last in the program. If students find a permanent lab before the end of the six-week period, that PI must petition the Graduate Advisor to approve the student to continue in the Ph.D. program. Students may not be eligible for financial support during this six-week period.

Once in a permanent laboratory, students may change to another laboratory; however, any change must be discussed with and approved by the Graduate Advisor and GSC Chair. The new PI must be a member in good standing of the CMB GSC.

If, for any reason, a student ends their association with their permanent laboratory before arranging for a new laboratory, they will be allowed two months to find another laboratory. While a student is without a laboratory, they may not continue to work toward the Ph.D. and may not have financial support unless through a TA position. The new PI must be a member in good standing of the CMB GSC and must petition the Graduate Advisor asking that the student be allowed to continue in the Ph.D. program.

After a PI agrees to accept a student into a permanent laboratory, a *Permanent Lab Agreement* form is required to document this. The student is responsible for obtaining all required signatures on the *Permanent Lab Agreement* form, including those of the PI and the GSC Chair before submitting the completed form to the Graduate Program Staff. Students will be notified via email of the deadline to submit the *Permanent Lab Agreement* form.

Co-PI Rule

It is possible to have two faculty members listed as supervisors (co-PIs). You may designate one as primary supervisor or you may have them listed equally as co-supervisors, in which case they will have equal responsibility over your progress. However, if one of the supervisors is not a member of the CMB GSC, that faculty member cannot be the primary supervisor. He or she can be a co-supervisor or a secondary supervisor. Please inform the Graduate Program Staff if you plan to have a co-PI.

Core Courses

The required Fall 2020 Core Courses are:

- MOL 290C (54415) Introduction to Biostatistics & Computational Analysis
- MOL 190C (54415) Responsible Conduct of Research
- MOL 395J (54440) Genes, Genomes, and Gene Expression

In Spring 2021, students must take one of the following core courses and also pick a track-specific course:

- BIO 395H Cell Biology
- BIO 395F Genetics
- BCH 387D Biophysical Methods in Biochemistry and Molecular Biology
- BCH 394P Bioinformatics
- BCH 394 Structure and Function of Proteins and Nucleic Acids
- BIO 395G Graduate Biochemistry
- BIO 395M Advanced Microbiology

If a student earns less than a B in any of the core courses, they will need to retake the course. If it is necessary to repeat a core course, it must be taken at the very next opportunity that the course is offered. The core courses may not be taken more than twice. Note that the Graduate School requires a cumulative GPA of 3.0 to remain in good standing. Failure to pass a core course that is being re-taken for the second time and/or failure to maintain a GPA of 3.0 or higher will result in dismissal from the program.

Track Selection:

Prior to the Spring semester, students will self-affiliate with CMB program track that is most relevant to their research interests. Each of these tracks has suggested or required courses for the spring semester. In the absence of student input, BIO 395F and BIO 395H are the default courses for the spring semester. Students who wish to take courses other than these default Spring courses should discuss this with the First Year Advisor and the Graduate Program Staff prior to registration.

Core Course Descriptions

Fall Core Courses

MOL 395J Genes, Genomes, and Gene Expression

Explore how genomes are maintained, propagated, and converted to functional RNAs and proteins. Understand the primary literature that has led to key advances in these research areas and the experimental approaches that are currently being used to forge new advances. Appreciate the current frontiers in these areas and explore the boundaries; what questions have known or hypothesized answers, and what questions remain to be answered by the next group of researchers and students.

MOL 190C Responsible Conduct of Research

This course will provide formal training in the ethical and responsible conduct of research in the disciplines represented in the ICMB graduate programs. Such training is required for researchers funded by training grants and federal fellowship awards, but is also vital for trainees embarking on their careers in scientific research. The class will be taught by a team of faculty with experience in research training and mentorship, using a discussion and case-study based approach. The topics covered will include professional development of trainees, research misconduct, conflicts of interest, collaborations, mentor/mentee responsibilities, authorship and publication, peer-review, data management, animal and human subject research, as well as contemporary ethical issues such as racism and inequity in science.

MOL 290C Introduction to Biostatistics & Computational Analysis

This course will introduce first year Ph.D. students in the ICMB graduate programs to the basic concepts and practices of statistics, programming, quantitative data analysis and data visualization as they apply to research in biochemistry, cell and molecular biology, and microbiology. Quantitative data analysis skills are increasingly critical in these research fields, so this course is intended to provide the foundation for developing these skills and prepare for more advanced coursework. Students will learn in an interactive, hands-on manner using the widely used languages R and Python, and build up to executing an independent data analysis project working in teams.

Spring Core Courses

BCH 387D Physical Methods in Biochemistry and Molecular Biology

This course will focus on the theory and application of physical methods used in biochemistry and molecular biology, with a major emphasis on macromolecular structure determination by X-ray crystallography and cryo-electron microscopy. Other topics include surface plasmon resonance, isothermal titration calorimetry, and bilayer interferometry. The course will provide students with the knowledge to design structural and biophysical studies to maximize data quality and avoid pitfalls, as well as to analyze and critique metrics used to validate structural results found in the primary literature. Much of the learning is expected to occur during lectures, with supplemental learning occurring via online content.

BCH 394 Structure and Dynamics of Protein and Nucleic Acids

This course is designed to give students the tools they need to be successful in a career in research in biochemistry and related disciplines by building a strong foundation to understand structure/function relationships in biological macromolecules. Students are expected to have a basic knowledge of protein and nucleic acid structure at the introductory biochemistry level. Learning is facilitated by computer simulation of reaction kinetics, which provides the basis to learn kinetics but also gives the most robust and comprehensive methods of fitting data to test models.

BIO 394P Bioinformatics

An introduction to systems biology and bioinformatics, emphasizing quantitative analysis of high-throughput biological data, and covering typical data, data analysis, and computer algorithms. Topics will include introductory probability and statistics, basics of Python programming, protein and nucleic acid sequence analysis, genome sequencing and assembly, proteomics, synthetic biology, analysis of large-scale gene expression data, data clustering, biological pattern recognition, and gene and protein networks.

BIO 395F Genetics

This course will focus on modern molecular genetic concepts and the scientific process, with analyses involving genetic mechanisms in biological systems and disease. Instruction will take place through lectures and reading/discussing primary literature. Students will develop and write their own independent research proposal involving primarily genetic topics and methodologies. BIO 395F goes beyond just learning modern genetics and techniques, aiming to provide students with additional skills that can be utilized in careers involving scientific research, obtaining funding, and writing and communication.

BIO 395H Cell Biology

This course will involve an in-depth immersion in the current scientific literature exploring how basic cell biological processes (vesicle trafficking, cytoskeletal remodeling, etc.) contribute to the physiology of

organisms, how fundamental molecular mechanisms drive cellular and subcellular behaviors, and how these mechanisms go awry in the course of human disease.

BIO 395G Graduate Biochemistry

This graduate-level course is designed for students interested in dissecting biological problems at the molecular level, and in the tools and methods that drive the process of discovery. This is an interactive class comprising lectures, case studies, in-depth analysis of original research papers, and student-led oral presentations.

Additional Required Coursework

BIO 391: Grant Writing and Presentation Skills

In preparation for the qualifying exam, second-year students are required to take BIO 391 Grant Writing & Presentation Skills. BIO 391 is a writing-intensive course for second-year Ph.D. student in the fall semester that involves writing of an NIH-style grant proposal on their own research, presentation of the proposal to the class, and practice in identifying specific aims in research areas outside their primary area. The class is taken by students in the Microbiology, Biochemistry, and Cell and Molecular Biology Programs.

Track Specific Core Courses that May Be Taken in the Spring

Students in the following tracks may substitute track-specific courses for Cell Biology, (BIO 395H) or Genetics (BIO 395F), or both in the spring semester of the first year.

Please note that the approved track core course lists are constantly changing and students should consult with the First Year Graduate Advisor if they wish to substitute a track-specific course for one of the spring core courses. Students not in the following tracks may still be able to substitute a track core course in consultation with their supervisor and Track Representative.

Tracks reserve the right to modify and change track-specific requirements and will inform students of any such changes. For more information on track requirements and course listings, visit the [Program Requirements](#) section of the CMB Graduate Program website.

Bioinformatics and Computational Biology

Fall:

- CSE 380 Tools/Techniqs Computatnl Sci

Spring:

- BIO 382K Biology for Data Science
- BIO 384K 27 Python Programming for BIO
- BIO 394P Systems Biology and Bioinformatics
- CSE 383M Stat/Discrete Methods Sci Comput
- SSC 394C Parallel Comput for Sci & Engr
- SDS 385 Computational Bio & Bioinformatics
- CS 395T Parallel Algors Scientfc Comp

Biomolecular Structure & Function

- BCH 394 Structure & Function of Proteins and Nucleic Acids
- BCH 387D Phys Mthd in Biochem/Molec Bio

Chemical Biology & Drug Discovery

- BCH 394 Structure & function of proteins and nucleic acids
PGS 397M Drug Design and Synthetic Strategy
- CHE 381Q Quantitative Molecular And Cellular Biology

Plant Molecular Biology

- BIO 388E Plant Growth and Development

Course Requirements for CMB Tracks

Below are track requirements and some courses that may be taken for an elective requirement. If students desire to take a course that is not a CMB core course or one of the electives listed under their track, they must get prior, written approval from their PI and Track Representative. Due to the constant changes in available classes, CMB encourages students to suggest alternative classes with the approval of their PI and Track Representative.

Bioinformatics and Computational Biology (BCB) Track Requirements

Track Representative: Can Cenik

Revised: August 2017

While computational analysis is now widely used in the vast majority of cellular and molecular biology, students in the Bioinformatics and Computational Biology Track will have an increased emphasis on the computational aspect. What constitutes significant computation is dependent on the lab and project, with an allowance for a significant amount of diversity in scope. And while all of the computational projects must address a topic in cellular and molecular biology, the definition of computation is broad. Programming languages can vary from Java, C++, and Python, to R, SQL, and matlab. And while the balance between pure programming vs. data analysis can vary, the thesis projects should have a significant amount of both, e.g. 80:20; 50:50; 20:80. Projects can have an emphasis on the development of a new algorithm (e.g. protein folding), data processing with Python for statistical analysis, use of sophisticated database management systems for big data applications to name just a few.

All BCB students should take one class from the list below. In addition, these track-specific courses may be substituted for the default spring first-year course (BIO 395H Cell Biology or BIO 395F Genetics). Students who opt to substitute one of the below courses for a spring core course are still required to take one additional BCB elective that may be chosen from the pre-approved list below, or in consultation with their PI and Graduate Adviser or Track Representative.

A partial list of these courses include:

Fall:

- CSE 380 - Tools/Techniqs Computatnl Sci

Spring:

- BIO 382K Biology for Data Science
- BIO 384K 27 Python Programming for BIO
- BCH 394P Systems Biology and Bioinformatics
- CSE 383M Stat/Discrete Methods Sci Comput

- SSC 394C Parallel Comput for Sci & Engr
- CS 392 Parallel Algors Scientfc Comp
- SDS 385 Computational Biology and Bioinformatics

In addition to the four core courses taken in the first year, students must meet the following track requirements:

1. Demonstrate competence in computer programming. It is expected that all BCB Track students can program in at least one language (e.g. Python or other scripting languages, Java, SQL, R, Matlab, etc.). No one language is specified since the language of choice varies across different research applications. This competency can be demonstrated through coursework or through practical experience. Contact the Track Representative and the student's PI with any questions or to request for a variance.
2. Demonstrate competence in the fundamentals of Biostatistics and/or Data Science (e.g. sequence analysis). It is expected that BCB Track students can interpret and perform basic statistical analyses and/or rigorous data analysis and communicate effectively with a statistician and/or domain scientist for more sophisticated analyses. This competency can be demonstrated through coursework or through practical experience.

Biomolecular Structure and Function (BSF) Track Requirements

Track Representative: Kenneth Johnson

Revised: May 2019

The BSF Track covers research involving the determination of structures of macromolecules and studies to define their functions which provides the basis of all biological function. Students in this track are required to take BCH 394 Structure and Function of Protein and Nucleic Acids (offered every spring) Other courses can be substituted with the approval of the Track Representative. A partial list of possible substitutions is listed below:

Fall:

- CH 391 Macromolecular Structure and Determination

Spring:

- BCH 387D Physical Methods In Biochemistry And Molecular Biology
- BCH 394P Systems Biology and Bioinformatics
- BCH 387D Adv Physical Methods For Biochem and Molec Bio
- PGS 384L Biochemical and Molecular Toxicology

Acceptable courses that may not be consistently offered:

- BCH 391L Macromolecular Structure Determination
- BIO 393 Microbial Functional Genomics
- CH 391L Synthetic Biology
- PGS 388C Introductory Bioorganic Chemistry

Chemical Biology and Drug Discovery (CBDD) Track Requirements

Track Representative: Jessie Zhang

Revised: August 2017

Track-specific core courses that may be substituted for the default spring first-year courses (BIO 395H Cell Biology and/or BIO 395F Genetics):

- BCH 394 Structure and Function of Proteins and Nucleic Acids (spring)
- PGS 397M Drug Design and Synthetic Strategy
- CHE 381Q Quantitative Molecular And Cellular Biology

Track-specific elective course list – a minimum of one course from the following or from courses listed above (or as determined by supervising professor):

- PGS 396M Advanced Medicinal Chemistry
- PGS 384K Fundamentals of Toxicology
- PGS 388K Molecular Mechanisms and Methods in Nutrition and Cancer
- PGS 384L Biochemical and Molecular Toxicology

Cell and Developmental Biology (CDB) Track Requirements

Track Representative: David Stein

Revised: August, 2020

The CDB Track is for graduate students interested in the mechanisms controlling fundamental eukaryotic cell processes, genetics and development. Within these broad and interrelated disciplines the individual laboratories affiliated with the CDB track focus on understanding the molecular and cellular basis of cell division, growth, differentiation, and movement; spatial patterning and morphogenesis of developing embryos; and gene regulation. CDB researchers utilize both plant and animal model organisms along with state-of-the-art methods in molecular biology, biochemistry, proteomics, genetics, and genomics.

Students that join the CDB track must successfully complete the following three CMB core courses:

- MOL 395J Genes, Genomes and Gene Expression
- MOL 290C Introduction to Biostatistics & Computational Analysis
- MOL 190C Responsible Conduct of Research
- BIO 391 Grant Writing and Presentation Skills

In addition, CDB track students must take two of the following three courses:

- MOL 395F Genetics, Genomics and Epigenetics
- MOL 395H Cell Biology
- BIO 383K Developmental Biology (Stein – also crosslisted with his BIO349).

Students will also take one graduate-level elective, selected in consultation with the student's faculty advisor and the CDB track representative. This elective can be the third of the three choices listed above or one of the courses on the pre-approved list shown below or another appropriate course offering. Courses that have not been pre-approved require the approval of the CDB track representative. Electives should be completed by the end of the third year.

Pre-approved Thesis-Oriented Electives:

- BIO 394L 1-Advanced Immunology (Ehrlich – Fall)
- BIO 381K Cellular and Molecular Bases of Neural Development (Agarwala – Spring)
- BIO 381P Advanced Plant Physiology (Roux – Spring)
- BCH 349P Bioinformatics (Marcotte)

- SDS 385 Computational Biology and Bioinformatics (Wilke)
- BIO 394M Tumor Biology (Huibregtse)
- BIO 393M Signal Transduction in Microorganisms (Harshey)

Molecular Genetics (MG) Track Specific Requirements

Track Representative: Arlen Johnson

Revised: September 2017

The MG track is tailored to students interested in the molecular mechanisms of gene expression and genome structure and maintenance. Students in the MG track must successfully complete the following requirements: Genes, Genomes and Gene Expression (MOL395J); Responsible Conduct of Research (MOL 190C); Introduction to Biostatistics & Computational Analysis (MOL 290C) Genetics (MOL/BIO 395F; Microbial Genetics BIO 395M may be substituted with consent of the Graduate Adviser) and Cell Biology (MOL 395H); and Grant Writing and Presentation Skills (BIO 391). In addition, students must take 1 elective in consultation with the PI and the track representative. Suggestions for electives include:

Fall:

- BIO 391P Advanced Virology
- BIO 394L 1-Advanced Immunology
- BIO 394M Tumor Biology
- SDS 328M Biostatistics

Spring:

- BIO 388M Plant Molecular Biology
- BIO 394M Genomics
- BIO 382K Intro to Biology for Data Science
- BCH 394P Systems Biology and Bioinformatics
- BIO 394M Human Infectious Diseases
- BIO393M Signal Transduction in Microorganisms
- SDS 385 Computational Biology and Bioinformatics

Neurobiology (NB) Track Requirements

Track Representative: Nigel Atkinson

Revised: April 2, 2014

Students in the NB Track of the CMB Graduate Program must meet the following requirements in addition to the general requirements for all students in the program. In the fall of their second year, students complete Principles of Neuroscience I (NEU 482T), a course that deals with cellular and molecular neuroscience. In the spring semester of their 2nd year, students are required to complete an additional elective course, from the following, selected in consultation with the track representative and the research mentor. Note that this list is constantly changing, and students may have to refer to the Track Representative for a current list.

Fall:

- NEU 382T Principles Of Neuroscience I
- PGS 383D Neuropharmacology
- NEU 383C Functional Neuroanatomy
- NEU 384M Advanced Statistics: Inferential
- NEU 385L 8-Ion Channels/Neuronal Signl

Spring:

- NEU 383D Neuropharmacology
- NEU 380E Vision Systems
- NEU 383T Principles Of Neuroscience II
- NEU 385L Pharmacolgl Mechs Of Addictn
- NEU 381N Basic Processes Of Nerve Cells
- NEU 385L 9-Synap Phys/Plasticity In Cns
- NEU 385L Computational Neuroscience
- NEU 394P 1-Curr Tpcs In Behav Neurosci
- NEU 394P 3-Neurobiol Of Learning/Memory
- NEU 396D Clinical Psychopharmacology

Courses that may not consistently be offered:

- NEU 385L Brain, Behavior, and Evolution (Fall)
- NEU 385L 12-Quantifying Brain Structure (Fall)
- NEU 384C Bootstrap Statistics
- NEU 394P Tpcs Statistics/Neural Coding

Beginning their third year of graduate training, students must enroll and actively participate in the presentation and discussion of the current scientific literature in neuroscience. A list of appropriate journal clubs is available from the track representative. As faculty, we strongly recommend (and students PIs may require) that students serve as a teaching assistant in a graduate or undergraduate course in neuroscience, neurobiology, or neuropharmacology at least once in their graduate career.

Plant Biology (PB) Track Requirements

Track Representative: Mona Mehdy

Revised: August 2017

There is one elective requirement for the Plant Biology track. Students may choose from the following list:

Fall:

- BIO 388M Plant Molecular Biology (Herrin)
- BIO 381P Advanced Plant Physiology (Clark)

Spring:

- BIO 388E Plant Growth And Development (Huq)

Track Elective Courses:

One or two additional track specific elective courses are required that may be taken in the second or third year and completed no later than the fourth year. Students must consult their PI, Track Representative and the [CMB website](#) about the requirements for their specific track. Courses for each track should be selected in consultation with the student's PI and Track Representative. Journal club courses are NOT suitable as electives, although note that some tracks may have additional journal club or seminar course requirements.

Required Grade Point Average

The Graduate School requires all graduate students to maintain a cumulative graduate GPA of at least 3.0. If a student's cumulative GPA falls below 3.0, the Graduate School will place them on academic probation. The student will have one semester to raise their cumulative GPA above 3.0. Failure to do so will result in dismissal from the program.

Qualifying Examination

The Qualifying Exam, often called the "qual" or "prelim", is a major milestone in the Ph.D. program. The purpose of the Qualifying Examination is to evaluate a graduate student's aptitude to perform original and independent research and to write a doctoral dissertation. The examination provides a means for a faculty committee to assess the student's mastery of concepts and methodological approaches by evaluating the student's general knowledge and fundamental understanding of cellular and molecular biology and the student's ability to design, articulate, explain and defend the proposed aims and research approach of their dissertation research. The ultimate goal of the Qualifying Examination is to ensure that the student has achieved a sufficiently high level of knowledge and skills necessary for successful completion of a Ph.D. dissertation.

In order to proceed with the Qualifying Exam, a CMB graduate student must:

- Have a cumulative GPA of at least 3.0
- Have completed all core courses with a grade of B or above
- Be assigned to a permanent laboratory
- If an international student, have completed ITA English-Language Certification and be eligible for employment "with student contact"

Qualifying Examination Timeline and Procedures

1. All graduate students in their second year who have passed the appropriate number of required courses will take the Qualifying Exam to advance to candidacy. If a student has not passed all the core courses with a grade of B or above, or, if they are an international student and are not yet "certified for employment with student contact," the Qualifying Exam will be delayed to within 3 months of completing these requirements. The Qualifying Exam is normally taken in the spring semester of a student's second year. Students who have not taken the Qualifying Exam by the end of their second year must write an explanatory letter of appeal to the GSC Chair and will be assigned a probationary status until further notice.
2. A Qualifying Exam informational meeting for second-year students will take place in November each year. At this meeting, students will hear about the timetable and guidelines of the Qualifying Exam as well as the expectations and exam process, as outlined below:
 - a. At the beginning of the spring semester (usually in January), exam-eligible graduate students will submit to the CMB Graduate Program Staff (i) a one-paragraph summary (100-200 words) of their intended research proposal (abstract), and (ii) a ranked list of four CMB GSC faculty members who might be appropriate to serve on their examination committee. This list should be developed in consultation with the student's faculty advisor. It is acceptable to include collaborators in this list. However, you must indicate that the faculty member is a collaborator and include a statement regarding the nature and extent of the collaboration. The GSC Chair will use this information to form the student's Qualifying Exam Committee.

- b. The student will be notified of the composition of their Qualifying Exam Committee within 30 days after submission of their abstract. Upon learning the members of their exam committee, the student is responsible for scheduling their Qualifying Examination, which involves polling the committee members and their PI for their availability for a two-hour timeslot. Upon finding a time when all members can attend, the student must reserve a room for the exam and notify the Graduate Program Staff and their exam committee members of the date, time, and location of the exam. If the student's PI cannot attend the exam, they will be required to provide the committee chair with a short statement on the student's progress. The deadline for the written portion of the exam is relative to each student's exam date (see Written Proposal below); students are responsible for meeting their individual deadlines. The Graduate Program Staff will provide the committee chair with a *Qualifying Exam Results* form, and a copy of the student's transcript, which will need to be brought to the exam.

Qualifying Exam Format

The Qualifying Exam consists of **written** and **oral** components. The written component is submitted **two weeks prior** to the Qualifying Exam and will form a large basis of the oral exam.

Written Proposal:

The Written Proposal, based on a topic of choice but usually aligned to the student's dissertation research, must be submitted to the Graduate Program Staff and distributed to faculty members of the examination committee no less than **14 days before the Qualifying Exam**. The Written Proposal should be modeled on and follow the format of a NIH F31 pre-doctoral fellowship application. As a guide, the general format of the Written Proposal is listed below but students should download the F31 application guide to obtain additional information about the contents and formatting of these applications.

The proposal will consist of the following sections. (Note that the margins on all sides cannot be less than ½", and the allowable fonts no smaller than Times 12, or Georgia or Arial 11. All information presented in figures and tables must be legible and easily readable by all committee members. For formatting compatibility, the proposal should be submitted as a pdf document.)

1. The **Specific Aims** page should describe concisely the Specific Aims of the proposal, including broad, long-term objectives and the specific goals of the proposed research to test a stated hypothesis. A Specific Aims page often includes one or two introductory paragraphs followed by the objective and description of each of three aims, which together form the basis of the research undertaken in the proposal. One aim or sub-aim must be an independent idea, and should be indicated as such with an asterisk. This is limited to one page.
2. The **Research Strategy** section, including all tables, graphs, figures, diagrams, and charts, is limited to six pages. This section should address the significance of the proposed studies, including the background leading to the proposed research projects; and the approach (including preliminary results, if any) will be used to provide experimental support of the proposed hypothesis. The precise format of this section can vary, but students should include the rationale of each proposed project, a discussion of the experimental or methodological approach, expected/anticipated results, interpretations, conclusions and significance, potential pitfalls, and alternative approaches.
3. A **Literature Cited** section (no explicit page limit) must be included in the Written Proposal, and students are expected to have read each of the papers listed in this section. It is expected

that the thesis project will be developed by the student and the PI. While it is acceptable for a large fraction of the proposed work to reflect ideas of the PI or others, an identifiable portion of at least one aim should reflect the ideas of the student. The student should be able to state to the committee which part of the proposal was developed independently.

Whereas students may seek input on their Written Proposal, the STUDENT MUST WRITE THE ENTIRE DOCUMENT. The student is responsible for being knowledgeable about and defending the entire contents of the Written Proposal. Faculty advisors, and other faculty members, may read, discuss, and make comments on the Written Proposal but may not write or in any way directly prepare a student's materials. Faculty and peers may provide edits for grammar, clarity, style, and spelling, but they cannot write de novo any part of the document.

Oral Exam:

1. The oral component of the Qualifying Exam should be scheduled to last two hours. Students are not allowed to bring refreshments for their exam committee to the Qualifying Exam. At the beginning of the meeting, the student will be excused and the exam committee will briefly discuss the written proposal, the specific exam format, and questioning procedures. Additionally, the committee will discuss the student's academic standing and progress, and the student's faculty advisor should be asked for input about these issues. **If the faculty advisor cannot attend the exam, he/she will be asked to submit written comments to the committee chair, which should be shared with the committee at this time.** The student will re-enter to begin the oral presentation of the proposal. The committee will ask questions throughout the presentation. At the completion of the presentation, and after all questions have been addressed, the student will again exit and the committee will discuss the outcome of the exam; the committee should ask the PI again for input. Following this input, the committee may also ask the PI to leave the room for the remainder of the deliberation period. Students will receive outcomes for both the written and oral portions of the exam.
2. The student should prepare a twenty-minute presentation, with a maximum of twenty slides. The brief presentation will introduce the background material, and the proposed research goals and project. The presentation should include an introduction that states the broad research question(s), an overview of the present state of knowledge, and the background work leading to the proposed project, questions and hypotheses. This should be followed by a description of each of the specific aims, the experimental approach and anticipated results. Students may practice their presentation in front of any audience they choose before the exam.
3. During and after the presentation, the examiners will question the student in order to assess the student's depth of knowledge in the topic area and understanding of the experimental approaches. The committee will ask general questions as well as questions pertaining to the specific topic area. Students may be asked to draw or explain concepts using the whiteboard. One purpose of the exam is to probe a student's breadth and depth of knowledge, so the committee may spend more time on areas where it is not clear whether the student has extensive knowledge, and correspondingly less time on areas where the student demonstrates expertise.

Questions during the exam are likely to be on topics including (but not limited to)

- Previous published work from the same lab and other labs that relates to the proposed work
- Unpublished work from the same lab that relates to the proposed work
- All methods that are planned for use in the proposed work

- Alternative methods that may be used if necessary
- Alternative models that may emerge from the expected results or unexpected results
- Additional research that could distinguish between alternative models
- Potential future directions of the research plan

Composition of the Qualifying Examination Committee

The Qualifying Exam Committee will be comprised of three faculty members. Ideally, two of these faculty will be members of the “Committee of 15” (a select group of CMB GSC faculty, also referred to as “Q15”) and one faculty member (not a member of the Committee of 15) will be selected from the list of four submitted by the student and who has expertise in the general area covered in the student’s Written Proposal. One of the Q15 committee members will be assigned the role of Chair. If it is not possible to have two members of the Q15 on a committee, the committee will consist of one Q15 member, one faculty from the student’s list of four if possible, and one additional faculty member with appropriate expertise appointed by the GSC chair (who may or may not be on the student’s list of four). In this case the Q15 committee member will be the chair. The student’s faculty advisor is encouraged to attend the Qualifying Exam but is not obliged to do so. If the faculty advisor cannot attend the exam, he/she will be asked to submit written comments to the committee chair, which will be shared with the committee at the exam. If in attendance, the faculty advisor is expected to be a silent observer and may speak only by permission of members of the exam committee.

Qualifying Exam Outcomes and Consequences

At the conclusion of the examination (usually when committee members have no further questions), the student will again be asked to leave the room and the committee will deliberate. The committee will then call the student back into the room to convey its decision.

Possible outcomes are:

1. Pass;
2. Conditional Pass (with conditions specified by the exam committee);
3. Re-examination of one or more parts of the Qualifying Exam at a later date;
4. Termination of work toward the Ph.D. As conditions in a conditional pass, the committee may ask for revisions of the written proposal or for the student to take additional coursework. (Serving as a TA for a course in an area that the student was deemed deficient cannot be a requirement for a conditional pass.)

Re-examination Rules and Procedure

In the event of a failing performance, and at the discretion of the Qualifying Exam Committee, the student will be advised of deficiencies and may be allowed to retake the Qualifying Exam. A student given the option to repeat the Qualifying Exam must do so by within three to four months of the original exam, except in exceptional circumstances requiring exemption by the CMB GSC Chair. At least one member of the student's original Qualifying Exam Committee must agree to serve on the subsequent exam committee. All three members may re-serve. The PI may request to the CMB GSC Chair that one or two members of the committee be replaced. A student who fails to pass the examination a second time must leave the graduate program by the end of the following long semester. A student who is not offered the option of re-examination must terminate work towards a Ph.D. and may not re-register in the CMB Program. A student advised to take a terminal Master’s degree may register only for those courses counted toward the Master’s degree and must complete the courses within a year.

Admission to Candidacy

Once a student successfully completes their Qualifying Exam, they will apply for, and be admitted to candidacy. Students are expected to do so by the end of your second year. There may be a small number of students who are not able to complete their Qualifying Exam with the rest of their cohort. In such cases, the student must reach candidacy by the end of the third year (sixth long semester). Failure to meet this benchmark will result in loss of good standing in the program. Any exceptions require approval of the Graduate Advisor, and must be communicated to the Graduate Program Staff. The Graduate School will notify the student via email when their Candidacy Application is approved

Requirements for Admission to Candidacy

Admission to Ph.D. candidacy has four requirements:

- Completion of all core courses with a grade of B or above
- A cumulative grade point average of at least 3.0
- Successful completion of the Qualifying Exam
- Submission and final approval of a [Candidacy Application](#).

Dissertation Committee

Before you submit a Candidacy Application, you will need to form your official dissertation committee. The Dissertation Committee has three primary responsibilities:

- General supervision of the student's research,
- To Monitor progress toward degree,
- To Certify to the Graduate Dean that an acceptable dissertation has been submitted.

Students may retain Qualifying Exam Committee members as members of their Dissertation Committee, but this is not a requirement. Students should consult with their PI and Graduate Program Advisor to form a suitable permanent Dissertation Committee. Students should explicitly confirm with proposed committee members that they agree to serve on the Dissertation Committee before filing the *Candidacy Application*. Any changes in committee membership must be made prior to application for candidacy.

CMB Dissertation Committees are typically comprised of five UT GSC members total, including the student's supervising professor (PI). The student's PI chairs the committee, and at least one of the additional four CMB GSC members must be outside of the student's primary track or department. If it's not possible to acquire a committee member that is outside of the CMB GSC, then you must have at least one member that is outside of your primary department. Approval from the Graduate School may be required in this event. The University permits a dissertation committee of four members; however, the policy of the CMB Graduate Program is for committees to have five members.

If a student elects to have a scholar from off-campus serve on the Dissertation Committee, they must be appropriately credentialed to serve on a Dissertation Committee. The Graduate Advisor and Graduate Dean will approve an addition of such a committee member only under exceptional circumstances, and only if the expertise he/she offers cannot be provided by a faculty member on campus. Students should consult with the Graduate Advisor for approval prior to contacting faculty members outside of UT Austin.

It is sometimes necessary to change the membership of the Dissertation Committee prior to completion of the dissertation. Changes for the sole purpose of constituting a more compliant committee will not be approved. Changes in the committee must be completed well in advance of scheduling the dissertation defense. Before changes will be approved, the Graduate Advisor and the Graduate Dean must approve the *Request for a Doctoral Committee Change* form. Consult the Graduate Program Staff prior filing a request for a change in committee membership.

Registration in Candidacy Status

Following admission to candidacy, students no longer register for Research Problems but instead must be registered for Dissertation Hours every long semester. Candidacy students must enroll in Dissertation Hours with a course number ending with a "W" (e.g. MOL 399W, MOL 699W, or MOL 999W) all subsequent semesters until graduation.

Annual Meetings with Dissertation Committee

Once a student has passed their Qualifying Exam and has been admitted to candidacy, they are required to meet annually with their Dissertation Committee to review their progress. The first committee meeting should be held within six months of admission to candidacy, and annually thereafter. Students are responsible for coordinating the meeting date and time with their Dissertation Committee. Following the annual meeting, the committee will record a summary of recommendations via the *Annual Committee Meeting* form. This form will be provided by the Graduate Program Staff and must be endorsed by the committee chair. Student's are responsible for obtaining all requisite signatures on the *Annual Committee Meeting* form. The signed form and written recommendations must be returned to the Graduate Program Staff and will be included in the student's record.

If a student has not completed the dissertation within three years of admission to candidacy, the results of the annual review will be presented with recommendations to the CMB GSC Executive Committee. The CMB Executive Committee will then decide what actions may be required.

Although the supervising professor provides day-to-day guidance, all members of the committee are expected to be available for consultation and students should feel free to ask for advice from them or any faculty member.

Application to Graduate

Prior to graduation, all students are required to notify the Graduate School of their intent to complete their degree by submitting the online *Graduation Application*. This requirement applies to students completing a Ph.D. or the M.A. in Cell and Molecular Biology. The application must be submitted by the published deadline during the semester you intend to complete the degree. Visit the Graduate School website at gradschool.utexas.edu/academics/graduation for information about current deadlines.

Ph.D. Thesis and Final Oral Exam/Dissertation Defense

The written thesis (dissertation) is expected to be a document covering the body of work produced by the student. Students are encouraged include an introductory chapter, which serves as a starting point to consider the research. The introductory chapter should lay out the relevant knowledge in the field, which is typically accumulated from prior work from the student's lab and others. It also may include a brief map of the student's work and main conclusions. The introductory chapter will be followed by one or more chapters describing the Ph.D. research. Students are also encouraged to include a chapter, typically at the end of the dissertation, that provides a new view of the field (conclusions) and a direction for future research (prospectus).

All students completing the Ph.D. in Cell and Molecular Biology must successfully present and defend their dissertation to their Dissertation Committee in order to graduate. The defense consists of two parts. The first is a public seminar that is open to all faculty and students. The seminar is expected to be approximately one hour in total length, including the introduction and questions from the public

audience. Immediately following the seminar, students meet privately with the Dissertation Committee to respond to questions from the committee members.

The final form of the dissertation must be circulated to the Dissertation Committee at least four weeks prior to the anticipated date of the final oral exam. When each member of the committee has had an opportunity to read the draft and agrees that it is ready to defend, students may schedule the final oral exam. It is the student's responsibility to coordinate an appropriate defense date, time, and location. A *Request for Final Oral Examination* must then be signed by the participating Dissertation Committee members and submitted to the Graduate School at least two weeks prior to the defense date.

The student, committee chair, and Graduate Program Staff will be notified via email when the Graduate School approves the *Request for Final Oral Examination*. The Graduate School staff will email instructions for *Report of the Dissertation Committee* form. This form records the outcome of the student's final oral examination and must be signed by all of the committee members following the defense. It is then the student's responsibility to obtain all necessary signatures and to submit the completed report form to the Graduate School by the published deadline. Visit the Graduate School website at gradschool.utexas.edu/academics/graduation/deadlines-and-submission-instructions for information about current deadlines.

Submission of Final Dissertation

Graduating students are required to publish their thesis, report, dissertation or treatise digitally by uploading a single PDF to the Texas Digital Library (TDL). The final document must be in a format acceptable to the Graduate School, and detailed information about formatting specifications can be found at gradschool.utexas.edu/academics/theses-and-dissertations/digital-submission-requirement-formatting. In addition to uploading the final dissertation to the Texas Digital Library, Students are also required to submit a printed copy of the following documents, known as the "Required Printed Pages", to the Graduate School:

- The *Report of Dissertation Committee* with signatures of your supervising committee - no proxy signatures allowed. ALL committee members and the GSC Chair (or representative) must sign the report. This form is provided to you by the Graduate School.
- A [Statement on Research with Human Participants form](#); and
- Any requests to [Delay Publication](#).

The Required Printed Pages and final dissertation are due to the Graduate School by 3:00pm on the relevant deadline for each semester. These documents are a requirement for graduation. **If you do not submit all required materials by the published deadline for a given term, you will not graduate during that semester.** Visit gradschool.utexas.edu/academics/graduation for a list of current deadlines.

Timeline of the Ph.D. Degree

This is an example of a typical degree plan, and may be subject to variation.

First Year

Fall semester

- Completion of first-year core courses
- Completion of laboratory rotations

Spring Semester

Completion of first-year core courses
Completion of laboratory rotations
Complete ITA English-Language Certification (international students only)
Choose a permanent laboratory (May)
End of May: financial support from ICMB ends
First of June: newly assigned permanent laboratory assumes financial responsibility of student
May: Elect to join a CMB Track
End of August: Complete TA workshop (if appointed as a TA in the Fall of the second year)

Second Year

Fall semester

Complete BIO 391 Grant Writing and Presentation Skills
Complete track specific elective requirement(s)

Spring semester

Take and pass the Qualifying Exam
Complete track specific elective requirement(s)
Apply for admission to candidacy (end of spring/summer semester, once all requirements are complete)

Third Year

Fall semester

Complete track specific elective requirement(s)
Enroll in Dissertation Hours (399W, 699W or 999W) every semester through graduation
Conduct first annual meeting with Dissertation Committee (must be conducted within 6 months of passing the Qualifying Exam)
Completion of teaching requirement (may be completed anytime after the student's first year)

Spring semester

Complete Track Specific Elective Requirement(s)
Enroll in Dissertation Hours (399W, 699W or 999W) every semester through graduation

Fourth Year and Beyond

Complete track specific elective requirement(s)
Enroll in Dissertation Hours (399W, 699W or 999W) every semester through graduation
Completion of TA requirement (may be completed anytime after the student's first year)
Conduct annual meeting with Dissertation Committee

Final semester

Apply to graduate by the published deadline
Schedule final defense and submit *Request for Final Oral Examination* to Graduate School
Complete and defend dissertation
Submit Required Printed Pages to Graduate School
Submit final dissertation to Texas Digital Libraries
Meet all deadlines required by Graduate School

Master of Arts with Thesis (M.A.)

The Master of Arts with Thesis involves original research carried out under the supervision of a member of the Cell and Molecular Biology GSC. This option is allowed only under certain circumstances and

requires the permission of the student's PI and the Graduate Advisor. Students who are approved to complete a Master of Arts in lieu of the Ph.D. must notify the Graduate Program Staff of this decision. The Graduate Program Staff will create a *Program of Work* to certify completion of the M.A. requirements. The *Program of Work* must be approved by the Graduate Advisor and Graduate School.

Academic Requirements of the Master of Arts with Thesis

- Completion of the Core Courses with a grade of at least a B and an overall GPA of 3.0 or higher.
- A total of 30 semester hours of course work with the following requirements:
 - 21 hours must be graduate-level course work,
 - 18 hours must be in the major area,
 - 6 must be in supporting work, (non-core biology/chemistry graduate or upper division course).
- Completion of the MOL 698A and 698B thesis courses; Must be enrolled in the 698B course the same semester as graduation

All work for a MA must have been initiated no earlier than six years before date of degree. Once a student has 30 hours of graded coursework, they may then have up to 6 credit hours with a grade of CR/NC. Approval of the Graduate Advisor is required prior to registration for a credit/no credit course. No course counted toward any other degree may be counted towards a Master's degree.

Master of Arts Thesis Committee

The student's PI and one other CMB GSC member will serve as readers of the MA thesis. It is the student's responsibility to arrange for the second reader. Any faculty member asked to be a reader should have an interest in the topic.

The readers must be allowed at least two weeks to read the thesis and return it to the student. Revisions are often necessary, so it is pertinent that the student provides the thesis turned to the two readers well in advance of the final deadline to submit the thesis to the Graduate School. Graduating students must submit all required materials and upload a final copy of their thesis to the Texas Digital Libraries by the published deadlines for each term. Current deadlines and requirements graduation can be found at gradschool.utexas.edu/academics/graduation.

Financial Support

Entering graduate students are supported for the first nine months (September – May) by the ICMB as Graduate Research Assistants (GRA). These positions provide a stipend, university health insurance, and tuition remission for up to 9 credits during each fall and spring semester. First-year students must meet all requirements for employment and must be completing the required laboratory rotations to remain eligible for GRA positions. Continued financial support becomes the responsibility of the permanent laboratory starting on June 1. The primary means of support for continuing CMB students is through appointment as a Teaching Assistant (TA), Graduate Research Assistant (GRA), or receipt of a University Fellowship or external fellowship (NIH, NSF, etc.). Upon joining a permanent lab, it is the student's responsibility to discuss their stipend and source of support with the PI. When selecting laboratories, students should also inquire as to the availability of summer support from grants as TA positions are very limited during the summer.

Policy for Graduate Student Stipends

The CMB program and CNS policies requires that students be paid, at least at the level of their first-year student stipend for the duration of their Ph.D. The Cell and Molecular Biology Graduate Program first-year student annual stipend rate for 2020/21 is \$32,500, plus university health insurance and in-state tuition for up to 9 credits each fall/spring and for up to 3 credits each summer term. It is the preference of the CMB Graduate Program that PIs choose to raise their student's stipends to remain in line with the first-year student stipend of incoming students, as the first-year student compensation may increase from year to year. Certain fellowships and grants may provide students with higher stipends and it is customary for PIs to discuss expected stipend rates with students.

CNS policy indicates that the minimum stipend should be no less than the TA stipend for that fiscal year or the first-year stipend rate, whichever is higher, and must include tuition and fees as stipulated by the Graduate School and Vice-President for Research. If a student serves as a TA, CMB Graduate Program policy requires that the PI supplement the student's stipend so that it is in line with their first-year student stipend rate. CNS policies on graduate student employment and stipends can be found at cns.utexas.edu/graduate-education/college-policies/academic-employment.

Academic Employment

Below is a description of the most common forms of benefits-eligible academic employment available to CMB graduate students: Graduate Research Assistantships and Teaching Assistantships. Questions about employment may be directed to the MBS Human Resources staff (MBS_HR@austin.utexas.edu) and/or the Graduate Program Staff. Additional information is available at gradschool.utexas.edu/finances/student-employment.

Graduate Research Assistants (GRA)

Many faculty members have research grants that allow them to appoint students as graduate research assistants. Students should be in communication with their PI concerning the availability of continued grant support and the availability of GRA appointments. In order to be eligible for a GRA position, students must be in good academic standing, be making satisfactory progress, and enroll in a minimum of 9 credits during each of the long semesters (fall and spring) and a minimum of 3 credits during the summer semesters.

Teaching Assistants (TA)

CNS and program policy states that CMB graduate students entering in 2020/21 may only be appointed a TA for total of three semesters during their graduate studies. Exceptions to this rule require approval in advance by the CNS Associate Dean for Graduate Education.

The CMB Graduate Program does not directly control TA assignments, but coordinates with the Biology Instructional Office to make TA assignments for graduate students. Each semester, the Graduate Program Staff will survey faculty about the need for TA appointments. Requests for TA positions must be made by the supervising faculty (not the student) directly to the Graduate Program Staff.

Teaching Requirement

The CMB Graduate Program requires all students to be appointed as a TA for at least one semester by no later than the fourth year. All students must complete a mandatory TA training workshop prior to their first TA appointment. This workshop is offered at the start of each fall and spring semester and is coordinated by the Biology Instructional Office (BIO).

ITA English Language Certification for International Students

UT Austin conducts English-Language Certification for TAs whose first language is not English. The CMB Graduate Program requires this certification of all international students, regardless of whether they serve as teaching assistants. All international students admitted to the CMB Graduate Program are anticipated to unconditionally pass the Oral English Proficiency Assessment and be “certified with student contact.” Students must be certified to be employed “with student contact” before being admitted to candidacy. Under certain circumstances, international students may be exempt from the requirement to complete the ITA English-Language Certification exam.

Additional information can be found at global.utexas.edu/english-language-center/about/department-resources. ICMB will sponsor the registration cost for ITA English-Language Certification. Please also consult the Graduate Program Staff prior to registration.

Re-appointments

Re-appointment as a TA or GRA is contingent on satisfactory progress towards the degree. This includes compliance with the schedule set by the graduate program and demonstrated effectiveness as a TA or GRA.

Limit to Appointment Hours for Academic Employment

Appointments for academic employment as a GRA/TA/Al or grader may not exceed a cumulative total of 20 hours per week during the first two long semesters (fall and spring) of graduate study at UT Austin, and no more than 30 hours per week during the subsequent semesters, including summer. International students may only work as many as 20 hours per week during the fall and spring semesters. Additional guidance about requirements for Graduate Research Assistants can be found at gradschool.utexas.edu/finances/student-employment/conditions.

Additional Employment and Outside Employment

CMB graduate students are not allowed to have outside employment such as part-time positions in restaurants, retail, etc. or any type of job that interferes with completion of coursework or research. On occasion, students may have 5-10 hours of additional or outside employment that is related to their role as graduate students, such as paid grader positions, but only after the completion of the first year. International students are not eligible for additional employment beyond their current 20 hour/week GRA or TA appointment. Before accepting any additional on-campus employment students should first consult their supervising professor and/or the Graduate Program Staff. You are required to disclose all outside activity that may result in a conflict of interest with your appointment at UT Austin. Information about this can be found on the UT Human Resources website at hr.utexas.edu/current/compliance/outside-employment.

University Fellowships

Each year the Graduate School accepts nominations from each graduate program for a variety of competitive University Fellowships. Many awards offer year-long stipends, and some provide generous compensation. Supervising professor will nominate students based on research accomplishments and promise of research excellence. The Graduate Advisor evaluates nominees and determines which may be sent forward to the Graduate School. Recipients for these awards are selected by the Graduate

School based on the strength of their applications and on their records of performance. Additional information about available awards can be found at gradschool.utexas.edu/finances/fellowships. Questions about fellowships may be directed to the Graduate Program Staff.

Competitive National Fellowships

All first-year students are encouraged to apply for federally funded competitive national fellowships, such as the NIH or NSF Pre-doctoral Fellowships or the Howard Hughes Pre-doctoral Fellowship. These fellowships are prestigious and often offer financial support for several years of graduate education. Students are strongly encouraged to apply for these awards during the second year of graduate study and are also encouraged to explore and apply to other external fellowship programs for which they may be uniquely qualified. Please visit www.nsf.gov/funding and www.grants.nih.gov/grants/oer.htm for more information.

Other Aid

The Office of Student Financial Services (finaid.utexas.edu) administers several long-term loan programs, the College Work-Study Program (for which graduate students are eligible), and a short-term loan program for registration and other emergency needs. Assistance with part-time or full-time job placement is also offered for students or student spouses. [Student Accounts Receivable](#) can provide information about institutional tuition/emergency loans and tuition and fee rates as well as information regarding fee payment and deadlines, loans, tax credits, etc. The Graduate Program Staff will email notices of additional scholarships and fellowships that become available throughout the year.

General Information

Contact Information

Mailboxes

All student's mailboxes correspond with their lab's mailbox. First-year students will need to routinely update their directory information to reflect what lab they are rotating in so that they receive mail. All MBS labs' mailboxes are located in the mailroom of NHB 2.606.

Change of Address and Phone Number

It is important that all directory information be kept up to date. Students must list a phone number where voice mail messages may be left. To update personal information, please visit [Texas OneStop](#).

Email Information

The CMB Graduate Program and the University of Texas uses e-mail as the primary method of communication with students, therefore it is imperative that students maintain current email addresses. Graduate students are expected to regularly monitor their email accounts and failure to check email may result in missing time-critical information. UT Austin does not mandate students create a utexas.edu email account, however, **all students who are employed as GRAs or TAs are required to establish a UT email account**. Information about establishing a UT email address can be found at get.utmail.utexas.edu. Please notify the Graduate Program Staff of any changes in email address.

Required Student Training

The University of Texas requires safety training for laboratory employees, which includes all Biochemistry graduate students. CMB students are required to be in compliance with these safety classes prior to beginning their first lab rotation. The required safety courses offered by the Environmental Health and Safety Office (EHS) and are:

- OH 101 Hazard Communication
- OH 201 Laboratory Safety
- OH 202 Hazardous Waste Management
- OH 207 Biological Safety

You can register for and complete the above courses online at ehs.utexas.edu/training/lab-training-requirements.php.

The Fire Prevention Services Office sponsors the Fire Extinguisher Use course, with more information at fireprevention.utexas.edu/fire-safety/portable-fire-extinguisher-training. Animal Use Training, and Radiological Health are on-campus classes and are typically offered at the start of every fall semester.

All of the above requirements must be satisfied within the first 30 days of the fall semester.

Academic Integrity

Ethical conduct is expected of every student in the CMB Graduate Program. As a graduate student at The University of Texas at Austin, it is important that you conduct yourself and your studies in a manner that aligns with the university's [Honor Code](#) and its standard of [academic integrity](#). You will be held accountable for your conduct and decision-making. **The CMB Graduate Program has a zero-tolerance policy regarding academic dishonesty. If you are found participating in any form of academic dishonesty, you will face immediate dismissal from the program.** Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, misrepresenting facts, and falsification of academic work, research, data or records.

Incomplete Grades:

If a student does not complete all the assignments in a course before the end of the course, the instructor may report the symbol X (incomplete) to the registrar in place of a grade. The student must then complete the course requirements by the last class day in his or her next long-session semester of enrollment. The instructor must report a final grade through the [Online Grade Change](#) system by the end of the grade-reporting period in that semester. If these deadlines are not met, the symbol X is converted to the symbol I (permanent incomplete). If the student is not enrolled during a long-session semester for twenty-four months following the end of the semester in which the X is reported and the instructor does not report a final grade, then the symbol X is converted to the symbol I. The symbol I cannot be converted to a grade. When the symbol I is recorded, the symbol X also remains on the student's record. The period for completion of course requirements may be extended only under unusual circumstances beyond the student's control and only upon the recommendation of the instructor and the approval of the Graduate Dean. The instructor of record must make requests for an extension of X to the Graduate Dean through the submission of a completed *Update to Student Academic Record* form. This request must provide reasons why the student was unable to complete the course work by the last class day in his or her next long-session semester of enrollment after receiving the X.

Note: TAs and GRAs may acquire no more than one temporary incomplete grade (X) and one permanent incomplete grade (I), or two temporary incompletes (X).

Holiday Schedules

Graduate students do not have the same break schedules as undergraduates. All CMB graduate students are paid continuously through the December, spring and May breaks, and thus, have the same work schedule and holiday schedule as university staff. The holiday schedule for university staff is published at www.utexas.edu/hr/holiday. **Graduate students should communicate with their faculty supervisors about expectations for holiday schedules.** Note: The relative tranquility of campus during breaks is very conducive to research progress in the laboratory.

Second Degrees

CMB students are not allowed to work toward or obtain a second degree outside of the CMB program (e.g., a Master's degree in a separate graduate program) without the written consent of their PI and the Graduate Advisor.

Registration

In general, students must be enrolled for classes whenever they are receiving services from the University, such as course instruction, faculty interaction, employment, and fellowship or training grant stipends. Students are advised to read the following section carefully and check with the Graduate Program Staff regarding registration procedures.

Additional information about registration policies is published on the Graduate School website at gradschool.utexas.edu/academics/policies. International students should also consult with International Student and Scholar Services for more information about registration and immigration requirements: global.utexas.edu/iss.

Full-time Student Status

The Graduate School at The University of Texas at Austin recognizes 9 semester hours during a long session semester (fall and spring) and 3 hours during a summer session as a minimum full-time course load. Graduate students who must register and remain registered for a full-time course load include holders of Graduate School-administered fellowships and scholarships; Assistant Instructors, Teaching Assistants, Academic Assistants, Assistants, Graduate Research Assistants, and Tutors; students living in university housing; students receiving certain student loans; and international students.

Continuous Registration

The Graduate School requires that all graduate students at the University of Texas at Austin be continuously registered and pay tuition and fees for all long semesters (fall and spring) of each academic year until completion of the degree. Additional information about this policy is published at gradschool.utexas.edu/academics/policies/continuous-registration.

Registration for Dissertation Hours

Once admitted to candidacy, you must register for dissertation hours every long semester until graduation. You will no longer register for research hours but instead register for dissertation hours: BIO 399W, BIO 699W, or BIO 999W. Registration for BIO 999W fulfills the 9-credit requirement for Teaching Assistants, Graduate Research Assistants, fellowship recipients, and international students.

Registration Access Periods

Graduate students may register for courses during prescribed registration access periods set by the Registrar published in the university [Course Schedule](#). Each student should check their [Registration Information Sheet](#) (RIS) for information about specific dates and times when they may enroll in classes.

Note for GRAs, TAs, and Fellowship Recipients: If you are appointed as a GRA/TA/Al, you must be registered for the minimum required number credit hours before your appointment will be processed and approved. Similarly, if you are a fellowship recipient you must complete registration before your awards will be distributed. **Failure to register on-time may result in delayed stipend disbursements.**

Confirmation of Attendance

Following registration and payment of your tuition and fees, you must take further action to confirm attendance. Once your tuition billing balance is changed to zero, go to [MyTuitionBill](#) in UT Direct and select the “Confirm Attendance” option to secure your registration. This step must be completed during registration for every semester. Failure to confirm attendance will result in your enrollment being cancelled by the university.

Late Registration

If you miss the regular registration periods, you may be able to register late, but you will be responsible for paying any late fees assessed by the Registrar. Late fees may range between \$25 and \$200. Late registration takes place during the first four class days of each long semester and during the first two class days of each summer session. All late registrations require the approval of the Graduate Advisor and submission of a *Request for Late Registration* form to the Graduate School. Please consult the Graduate Program Staff for assistance with late registrations.

Adding/Dropping Courses

You may add and drop courses during the add/drop period without penalty. After the 12th class day, you cannot add a class without petitioning the Graduate School. Petitions of this nature are not often approved, so be certain your registration is correct before the add/drop period ends. If you need to drop a course after the 12th class day deadline and your petition is approved, you will not be reimbursed for the cost of the course. If you have to add a course to keep full-time status due to TA/GRA obligations, you may have to pay for the additional course.

Registration Requirement for the Master's Students

During the last two semesters before graduation, master's students must be registered in thesis courses, MOL 698A (3 credits) and MOL 698B (3 credits). MOL 698A may only be taken once and must be taken before MOL 698B. Students must be registered for 698B during the semester in which the thesis is submitted.

Leave of Absence

Students not yet in candidacy must obtain authorization from the Graduate Advisor for a leave of absence. Those admitted to candidacy must receive approval from the Graduate Dean and the Graduate Advisor for a leave of absence. An *Authorization for Leave of Absence* form must be submitted to the Graduate School and it is the responsibility of the student to obtain all necessary signatures on the form.

A student on approved leave must apply for readmission in order to return to the University, but readmission during the approved period is automatic and the application fee is waived. A student on leave may not use any University facilities; nor is he/she entitled to receive advice from any member of the faculty. A leave of absence does not alter the time limits for degrees or course work. Additional information is published on the Graduate School website at gradschool.utexas.edu/academics/policies/leaves-of-absence.

Withdrawal

Early Withdrawal from CMB Program During First Year

Early withdrawal from the program may result in a requirement to pay tuition for the current semester. Students should consult with the Graduate Advisor and notify the Graduate Program Staff if they are considering leaving the program during the first academic year.

Withdrawal from CMB Program

Students who drop their entire course load by definition withdraw from The University of Texas at Austin for the semester. To withdraw from the Graduate School, the student must file a *Withdrawal and Refund Request* form with the Dean of the Graduate School, which may be obtained from the Graduate School in Main 101 or from GradStudentSvcs@austin.utexas.edu. The form must be signed by the Graduate Advisor, and the student is responsible for obtaining all necessary signatures. Students withdrawing from the university should also notify the Graduate Program Staff of their decision.

Withdrawal from the university before the last class day of a semester will result in a requirement to personally pay the tuition for that semester. Withdrawals during a semester cancel most UT payments of tuition and tuition waivers. These cancellations result in a balance due which UT Austin will bill to the student. This information does not apply to medical withdrawals. Additional information about withdrawal, including for medical reasons, is published at gradschool.utexas.edu/academics/policies/withdrawals.

Out-Of-State Tuition Waivers

Employment as a TA or GRA qualifies non-Texas residents and international students for resident (in-state) tuition rates. To ensure the non-resident portion of your tuition bill is removed and you are charged in-state tuition rates, you must request an employment waiver. The employment waiver is available online via UT Direct and must be completed every semester during registration and before your tuition bill is paid. You may access the waiver form at utdirect.utexas.edu/acct/fb/waivers/rte_request.WBX.

Note for Fellowship Recipients

Recipients of University Continuing Graduate Fellowships, PGEF award (or Pre-Emptive University Fellowships) should not complete the employment waiver form, as the Graduate Program Staff will request a waiver for you. Recipients of *external* fellowships should notify the Graduate Program Staff of their funding and provide a copy of the award letter, as this information is required to request a tuition waiver from the Graduate School and College of Natural Sciences.

International Student Health Insurance Waivers

International students are required by the University to have health insurance in order to comply with visa regulations. The UT Select (staff) health insurance coverage provided to GRAs and TAs will fulfill

this requirement. However, the University also automatically enrolls all international students in the UT Student Health Insurance Plan. As a result, you will need to complete additional steps to waive coverage through the UT Student Health Insurance Plan after registering for classes. This will automatically remove charges for UT Student Health Insurance from your tuition bill. The waiver form is available online and must be completed during registration every semester that you are appointed as a GRA or TA. Claim the waiver here: <https://utdirect.utexas.edu/apps/issr/insr/waiver/>.

Student Records

The Graduate Program Staff maintains the official program records of all CMB graduate students. Students are responsible for submitting all required documentation or forms necessary to ensure their record is accurate and up-to-date. **Records are subject to the Family Educational Rights and Privacy Act of 1974 (FERPA)**. Members of the CMB GSC, any faculty member appointed to the Dissertation Committee, and the Graduate Program Staff will have access to your file. Other university personnel may be required to access your student record, and may be authorized to do so by the Graduate Advisor, if their assistance is required to carry out necessary administrative responsibilities related to graduate studies.

More information about FERPA and your privacy may be found at registrar.utexas.edu/staff/ferpa.

Your student file may contain:

- Admission Documents
- Curriculum Vitae
- *Laboratory Rogation Agreement* forms
- *Permanent Laboratory Agreement* form
- *Qualifying Exam Results* form
- Safety Training Certifications (e.g. Hazard Communication, Radiological Health, Laboratory Safety and Fire Extinguisher)
- TA Evaluations
 - Each time that you assist in a course, the supervising faculty member fills out an evaluation of your performance. A copy of the evaluation may be retained your student file. You may request that copies of your student evaluations be placed in your file. If you choose, you may prepare a statement that will be appended to the evaluation and become part of the file.
- *Annual Meeting of Dissertation Committee* forms
- Other items that provide a record of the student's activities and progress. Students are encouraged to place reprints of any published articles in their files.

Disability Services

The University of Texas at Austin is committed to providing every necessary resource to students with disabilities. If you are a person with a disability and have special academic circumstances – whether permanent or temporary – please visit the Services for Students with Disabilities (SSD) web site at diversity.utexas.edu/disability.

The CMB Graduate Program is committed to accommodating students with documented disabilities. However, it is the student's responsibility to make arrangements for any accommodations with the course instructor. The student must secure a letter from SSD, present it to the instructor, and formulate an appropriate accommodation plan with the instructor. See the SSD guidelines for additional details.

Parental Accommodation Policy

The College of Natural Sciences (CNS) recognizes that some graduate students start or expand families during their time in our graduate programs. CNS offers four types of accommodations for graduate students with growing families: Academic Accommodations, Teaching Assistant Accommodations, Graduate Research Assistant Accommodations, and Parental Leave. These accommodations are available to full-time students (enrolled for at least nine credit hours each long semester and three hours in summer). It is the responsibility of a graduate student anticipating a birth or adoption to inform their Graduate Adviser and/or GSC Chair, and their research supervisor of any anticipated accommodation needs as early as possible. The full policy and faculty contacts in each department can be found at cns.utexas.edu/graduate-education/college-policies/parental-accommodations

Where To Go When Problems Arise

Graduate students are encouraged to discuss concerns with their Graduate Advisor, Graduate Program Staff, supervising professor (PI), or Graduate Studies Committee Chair. The University also provides several support services for graduate students:

The **Office of the Student Ombudsman** provides a neutral, impartial, and confidential environment for students to express concerns related to life at the University of Texas at Austin. The office can assist graduate students with university-related difficulties, and help identify pathways and options for conflict resolution. More information is available at utexas.edu/student/ombuds.

The **UT Counseling and Mental Health Center (CMHC)** provides a variety of services for graduate students, including crisis intervention, and a variety of support groups and workshops. More information is available at cmhc.utexas.edu. A confidential 24/7 Crisis Line may be reached at 512-471-CALL (2255). Additional campus resources for a variety of concerns are published in a [Graduate Student Mental Health Resources Guide](#).

The **Behavior Concerns Advice Line (BCAL)** is a service that provides faculty, students and staff an opportunity to discuss their concerns about another individual's behavior. Trained BCAL staff will provide appropriate guidance and resource referrals to address the particular situation. This service is a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP) and The University of Texas Police Department (UTPD). An individual can either call the line at 512-232-5050 or report their concerns using the online submission form at besafe.utexas.edu/behavior-concerns-advice-line.

Texas Global and International Student & Scholar Services (ISSS) provides advice, programs, information, and services to the international community, including incoming graduate students. Questions and concerns about immigration policy, visa requirements, employment restrictions, etc. should be addressed to the Texas Global and ISSS staff. Students may visit global.utexas.edu/issv for more information.

Student Emergency Services (SES) in the Office of the Dean of Students serves as a primary point of contact for students and their families and assists with navigating campus and community resources. SES can help students by offering: information regarding course load reductions or full withdrawals, emergency funds, short-term emergency housing, referrals to appropriate campus offices, discrete notifications to professors regarding absences, and coordination with families. More information can be found at deanofstudents.utexas.edu/emergency.

Grievance Policy

Procedures for handling graduate student grievances are outlined on the [Graduate School's grievances webpage](#). The policies described there are based upon the following principles:

Graduate students have the right to seek redress of any grievance related to academic or nonacademic matters. Every effort should be made to resolve grievances informally between the student and the faculty member involved or with the assistance of the graduate advisor, Graduate Studies Committee chair, or department chair.

The CMB Graduate Program leadership understands that grievances with faculty, staff, or peers are very difficult for graduate students, and strives to ensure that students are comfortable reaching out for help. The following hierarchy is recommended when seeking assistance:

1. Graduate Advisor
2. Graduate Program Administrator
3. ICMB Executive Committee
4. Director of ICMB
5. Molecular Biosciences Department Chair

The comfort-level of the student and/or severity or urgency of the situation may merit escalation of the grievance up the hierarchy.

In situations where the grievance cannot be resolved informally at the program/department level, students have recourse through formal procedures that vary, depending on the type of grievance. Four main categories of grievances are:

- Academic Grievances (examples include: adherence to degree requirements, changes in supervising committee membership, situations involving program termination)
- Non-academic grievances (primarily issues involving either discrimination or misconduct)
- Employment Grievances for Teaching Assistants and Assistant Instructors (issues related to the academic freedom of individual TAs, non-renewal of a TA or AI position, withholding of salary or promotion)
- Employment disputes involving Graduate Research Assistants

Procedures for addressing each type of grievance listed above is available at cns.utexas.edu/images/CNS/graduate_students/Grad_Student_Grievance_Policies-CNS-June_2017_2.pdf.

Campus Safety

The **Office of Campus Safety & Security** oversees the offices of Emergency Preparedness, Environmental Health and Safety, Fire Prevention Services, Parking and Transportation, and the University of Texas at Austin Police Department. Students should explore their website to learn more about safety and security on campus: utexas.edu/safety.

SURE Walk

SURE Walk is dedicated to reducing all forms of interpersonal violence for the campus community. The program is organized by the UT Student Government and provides safe walks and rides home, to decrease the risk of any form of assault occurring. Additionally, we also aim to educate the community

on assault, consent, healthy relationships, and resources for survivors of assault. More information can be found at utsg.org/sure-walk-1.

UT Austin Night Rides

UT Night Rides provides a Lyft ride from the main campus to students' homes. Rides are available every day from 11:00pm – 4:00am. Locations for this service mirror current UT Shuttles routes for West Campus, Far West, Lake Austin, North Riverside, Lake Shore, Crossing Place, and Intramural Fields as well as mainline Route 10, serving the Red River area. All UT Night Rides must originate from main campus only. Visit parking.utexas.edu/night for more information.

Emergencies

For emergencies, the University also has a dedicated phone number, 512-232-9999, and website: emergency.utexas.edu. You can also sign up for text message alerts for emergencies. If you have an emergency anywhere on campus, you may call 911. Your call will be routed to the correct dispatch office according to your location.

Facility Services

Call 512-471-2020 if you have questions or reports about building outages or access issues, water line issues, landscape issues, or general maintenance needs.

Other Contacts & Campus Support Resources

The Office of the Dean of Students

The Office of the Dean of Students (deanofstudents.utexas.edu) provides a variety of student support services along with opportunities for leadership experience, diverse student work environments, engaging programming and specialized resources.

College of Natural Sciences Office of Graduate Education

The CNS Office of Graduate Education provides a variety of services to current students, including professional development and career support, orientation and trainings, and opportunities to participate in STEM outreach programs. Visit cns.utexas.edu/graduate-education for more information.

Faculty Innovation Center Graduate Student Development Program (GSD)

The GSD Program is an initiative of the Office of the Provost, the Graduate School, and the Faculty Innovation Center (FIC). GSD provides opportunities to advance graduate students' pedagogical, academic, and professional progress, including support for drafting a teaching statement and creating a teaching portfolio. More information is available at facultyinnovate.utexas.edu/gsd.

Center for Biomedical Research Support (CBRS)

The Center for Biomedical Research Support (CBRS) provides access to cutting-edge technology and expert advice to enhance research. CBRS oversees several core research facilities critical for research activities on campus. Graduate students are also eligible to take the short courses and workshops offered by CBRS throughout the year. More information is available at research.utexas.edu/cbrs.

Resources that Support a Safe and Inclusive Campus

The CMB Graduate Program, the University of Texas, and the College of Natural Sciences want all graduate students to benefit from supportive, inclusive, and safe classroom and research experiences. The following resources are available to support this goal:

- [CNS Diversity and Inclusion Resources and Initiatives](#)
- [Campus Climate Response Team \(CCRT\)](#) (report a bias incident)
- [Division of Diversity and Community Engagement \(DDCE\)](#)
- [Title IX Office](#)
- [Gender and Sexuality Center](#)

The **Molecular Biosciences Department Diversity and Inclusion Committee (MBS D&I)** focuses on issues concerning climate, conduct, and diversity within the graduate programs and wider research community. Comprised of faculty, staff, graduate students, and post-docs, the committee aims to promote diversity at all levels within the department. The committee works to provide appropriate resources and trainings and to develop initiatives that support a positive and safe environment for all community members. The committee can be reached at mbs_di_committee@utlists.utexas.edu.

Students Against Racism and Discrimination in Natural and Engineering Sciences (SARDINES) is a grassroots organization of graduate students working to identify and rectify causes of inequity within the Molecular Biosciences (MBS) department and graduate program. We are committed to advocating for students who face unique and systemic challenges due to a fundamental aspect of their identity. These groups include, though are not limited to, students who identify as members of underrepresented groups (Black, Indigenous, Latinx, Southeast Asian, and Pacific Islander), members of the LGBTQIA+ community, women, students with disabilities, international students, and members of religious minority groups. We work closely with the MBS Graduate Student Association (GSA) and the MBS Diversity and Inclusion committee to accomplish actionable goals that promote an equitable and inclusive environment where all scientists can flourish. Our current goals include increasing representation of diverse speakers in our departmental seminar series, generating a Student Rights document, producing educational resources on antiracism and distributing these to our scientific community, and coordinating outreach to the greater Austin community. Please contact utsardines@utexas.edu for more information and to get involved.

The **Title IX Office** is committed to creating and fostering a campus environment free from all forms of sex discrimination. [Title IX](#) is a federal law that prohibits discrimination on the basis of sex in any federally funded education program or activity. Title IX protects all members of our campus community who experience sex discrimination, sexual harassment, sexual assault, interpersonal violence (including dating and domestic violence), stalking, or discrimination on the basis of pregnancy.

Additional Resources

Links to additional resources and programs available to students can be found on the ICMB website at icmb.utexas.edu/graduate-programs-home/resources.

APPENDIX

Mentorship and Outreach Opportunities for STEM Graduate Students

In-Person Opportunities:

Summer Undergraduate Program for Experimental Research (SUPER)

A 10-week program that provides summer research opportunities at the University of Texas at Austin. The program is available to rising Sophomores, Juniors, and Seniors who are considering a career in life-science research. The program is organized by the ICMB and graduate students are welcome to contact the Graduate Program Staff for information about participating.

Texas STEM Connections:

Portal to connect with K-20 educators, classrooms, out of school time programs, and other volunteer opportunities in STEM.

Science Buddies Program:

Most volunteer opportunities only take a few hours of commitment. Volunteers can also work remotely in the Ask an Expert Program, where graduate students and post docs can answer questions from kids and parents on the forum.

Present your PhD Thesis to a 12 Year-Old

The UT Graduate Science Outreach group facilitates this program that places PhD students and scientists in elementary and secondary classrooms to share their discoveries and provide real-world examples to complement classroom science topics.

Undergraduate Mentoring:

Graduate students can serve as mentors for undergraduates interested in attending graduate school through the College of Natural Sciences mentor programs.

Remote Opportunities:

National Summer Undergraduate Research Project:

A community-driven initiative to create rewarding remote summer research opportunities for BIPOC undergraduate students in the microbial sciences.

Skype a Scientist:

Program that matches scientists with K-12 classrooms. Once matched, volunteers will video chat with the classroom for a 30 to 60-minute session. The format is Q&A style so that the kids feel they've had direct contact with scientists. The program aims to put a friendly face to science and make science more accessible. Volunteers do not need to prepare a lecture, and are encouraged to just have a conversation!

Science in the Classroom:

Science in the Classroom is looking for graduate students, postdocs, and anyone with an advanced graduate degree to help us annotate scientific research papers. We are also looking for expert high school and undergraduate teachers to help us package and present this content in the best way possible.

Conflict Management

Workplace conflicts are challenging and learning to constructively address disagreement is essential to maintaining a positive and professional environment. The following is a list of resources available through UT Austin related to conflict management. Many of these are designed to empower you to resolve conflicts rather than provide a solution for you.

Confidential Resources

- [Office of the University Ombuds](#)
- [Employee Assistance Program](#)
- [Counseling & Mental Health Center](#)

Resources for Mediation and Facilitation

- [Office of the University Ombuds](#) (confidential)
- [Conflict Management & Dispute Resolution Office](#)
- [University of Texas Project on Conflict Resolution](#)
- [Strategic Workforce Solutions](#)

Resources for Training on Effective Communication

- [Student Employee Excellence Development Program](#)
- [Leadership and Ethics Institute](#)
- [University of Texas Project on Conflict Resolution](#)
- [Preparing for Difficult Conversations](#) (Employee Assistance Program)
- [Dealing with Difficult People](#) (Human Resources)
- [How to Prepare for a Difficult Conversation](#) (Human Resources)

Resources for Legal Issues and Grievance Procedures at UT

- [Legal Services for Students](#)
- Graduate School [Grievance Resources](#)