

Handbook

PhD Graduate Program in Biochemistry and Biophysics

Brandeis University
2022-2023 Academic year

The purpose of this handbook is to help students navigate the various requirements and expectations of the Graduate Program in Biochemistry and Biophysics. It describes the requirements for the Ph.D. degree and contains general information about the procedures to be followed in satisfying these requirements. These are also summarized in the "Pocket Handbook" on page 17 of this handbook. You will need to consult the instructions and forms contained here at various times during your graduate studies, so please save your copy or select "Student handbook" on the [website](#).

The Biochemistry & Biophysics Graduate Program is an interdepartmental graduate training program with faculty drawn from the Biochemistry, Biology, Chemistry, and Physics departments. Progress of students in the program is monitored mainly by faculty of the Biochemistry Department and the Biochemistry & Biophysics Graduate Program Chair. An up-to-date list of faculty associated with this program is posted on the Biochemistry & Biophysics Graduate [program webpage](#).

****Important Note Regarding COVID-19:** Due to the uncertain direction of COVID 19, please note that the contents in this handbook may be subject to change. If there are any changes, we will notify you as soon as possible by email. Please make sure you check your Brandeis email regularly, at least once a day.

For COVID-19 updates, please consult their website: [COVID-19 Response: What's Now, What's Next | Brandeis University](#). If you are displaying COVID symptoms, please do NOT come to campus, but instead stay home and call the Health Center. Health Center Contact Information: brandeishealthcenter@brandeis.edu or 781-736-3677 (during regular hours) or 781-239-1948 (after-hours urgent consultation).

Director of Graduate Study for the BCBP Graduate Program (Program Chair): Dan Oprian, Volen 407, oprian@brandeis.edu, 781-736-2322

Department Chair: Dorothee Kern, Volen 444, dkern@brandeis.edu, 6-2354.

Program administration and record keeping:
Anna Esposito in Biochemistry and Graduate Affairs Office,
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Degree requirements -- General Information

To obtain the Ph.D. degree, students must satisfy both the general requirements of the graduate school and the specific requirements of the Biochemistry & Biophysics Graduate Program. Both sets of requirements are summarized in the [Brandeis Bulletin](#).

The following sections contain additional details about the program requirements.

The student is responsible for fulfilling each requirement before the relevant deadline. At the discretion of the faculty, students failing to complete requirements on time may be required to leave the Program.

Students in the Biochemistry & Biophysics Graduate Program are expected to work full time towards the degree throughout the entire calendar year. Students should be aware that scientific research is a demanding occupation and that researchers often find it necessary to do work on nights, weekends, and holidays in addition to that during "normal working hours." This precludes students undertaking outside employment or outside academic activities that would require a significant amount of time.

The Graduate School requires that "Students entering Brandeis with no previous graduate work must earn the doctorate within eight years from the inception of study. In recognition of the extraordinary circumstances of the COVID-19 pandemic and the myriad research and health disruptions of our doctoral students' progress, GSAS will be automatically granting an extension of time to degree for any doctoral student who was enrolled during the Spring 2020 semester, thereby extending their time from eight to nine years. Students who have passed the terminal point for the degree must petition the Graduate School for an extension no later than the final semester prior to the expiration of their time to graduate."

However, the Biochemistry & Biophysics Graduate Program expects students to complete Ph.D. thesis research before year 5.5.

Requirements for the Ph.D. degree

1. Courses

To fulfill the course requirement for the Ph.D. degree, the student must complete each course with a letter grade of B- or higher. To make any subsequent modifications to the Required Program of Study, the student must obtain, in advance, written approval from the Program Chair. All elective courses must be chosen in consultation with the Program Chair.

The required Program of Study consists of seven one-semester courses. The student will meet with the Program Chair during orientation to discuss the selection of courses before registering for courses. The only explicitly required course is BCBP 200b, *Readings in Macromolecular Structure-function Analysis*, but all courses must be approved by the Graduate Program Chair. In addition, students must complete one year of laboratory rotations, BCBP 300a and BCBP 300b, and attend the Division of Science Responsible Conduct of Scientific Research (RCR) Mini-course, which do not count towards the seven courses required. For the 2022-2023 academic year, the RCR Mini-course will take place on October 17, 2022. All graduate students beyond the first year must register for BCBP 401D *Biochemical Research Problems*, the official designation for Ph.D. thesis research. This course also does not count toward the seven course requirement. The following is a typical program of study:

Year 1

Responsible Conduct of Scientific Research Mini-course (October 17th)

Year 1, Fall Semester

BCHM 101a Advanced Biochemistry: Enzyme Mechanism
BCHM 102a Quantitative Approaches to Biochemistry
BCBP 300a Laboratory rotations

Year 1, Spring Semester

BCHM 104b Physical Chemistry of Macromolecules
BCBP 200b Readings in Macromolecular Structure-function Analysis
BCBP 300b Laboratory rotations

Year 2 and 3

BCBP 401 Biochemical Research Problems (all four semesters of years 2-3)

Three additional elective courses, often including one or more of these (although, not limited to these courses):

BCHM 103 Advanced Biochemistry: Information Transfer
Mechanisms BCHM 104a Classical and Statistical Thermodynamics
BCHM 145a How to Decide: Bayesian Inference and Computational Statistics
BCHM 171b X-ray crystallography

BCBP 233a Advanced Topics in NMR and Protein Dynamics
BCBP 240A 1 Advanced Topics in Single-molecule Biophysics
BCBP 266a Advanced Topics in Protein Folding
BIBC 126b Molecular Mechanisms of Disease
BIOL 107a Data Analysis and Statistics Workshop
BIOL 125 Immunology
BIOT 201 Business Technology
CHEM 160 Nano Biotech
CHEM 235 Advanced NMR Spectroscopy
COSI 149 Practical Machine Learning
MATH 162a Numerical Methods for Scientific Computing
PHYS 105a Biological Physics
Q BIO 110a Numerical Modeling of Biological Systems
Q BIO 120b Quantitative Biology Instrumentation Laboratory

Year 4 and beyond

BCBP 401D Biochemical Research Problems (every semester)

Note that the passing grade for Biochemistry & Biophysics Ph.D. students is a B-. Students failing to earn a passing grade will be required to re-take that course (or equivalent). In addition to passing the formal course requirements, all students should endeavor to keep abreast of current developments in Biochemistry & Biophysics and related fields. To accomplish this, we urge students to attend the following seminars weekly during the academic year:

- 1) The Biochemistry & Biophysics Friday Pizza Talks – **attendance is highly encouraged**
- 2) One or more departmental colloquia or specialty journal clubs according to the student's interest.
- 3) **The research talks sponsored by the students from the MSM and BCBP training programs are mandatory for all students to attend. Students in their 2nd year and above will present a talk once per year as part of their program requirements. The talk must be about a student's own work.**

Tuesday talks are for you, students and postdocs, to provide you with the opportunity to practice how to give scientific talks to a broader scientific community. Besides the research itself, oral presentations of discoveries, communication, scientific discussions, and manuscript/results/grant writing are the most important skills you need going forward.

Most opportunities you will have to give scientific talks, whether at Brandeis or conferences, will be to an audience of experts in your research area. The Tuesday talks are a unique opportunity to practice presenting your science to a very broad audience that spans the spectrum, from physicists and applied mathematicians to cell biologists. Whether your career path takes you to academia, industry, policy, anything really in our

tech dominated world, you will be called upon to describe your ideas to an audience of non-experts. Therefore, developing this skill in a low stakes environment is a very important part of your training.

Furthermore, the discussions after your talk can give you extremely valuable input/new ideas for your own project. They can help you make connections with researchers outside your program or department, which might prove invaluable. For the audience, listening to talks outside of your narrow own project will teach you the most valuable part of science: to broaden your horizon, to cross connect, to trigger novel creative ideas, to stimulate new ideas cross-disciplinary.

Biochemistry & Biophysics Ph.D. with Specialization in Quantitative Biology (QB)

In order to receive a Ph.D. in Biochemistry & Biophysics with a specialization in Quantitative Biology, students must complete the requirements defined above for the Biochemistry & Biophysics Ph.D. degree and, in addition, must satisfy the course requirements for the QB specialization that are described in the [quantitative biology section of the *Bulletin*](#). Any alteration to the QB course requirements must be approved by the QB program faculty advisory committee. With the approval of the Graduate Program Chair, courses taken to satisfy the QB specialization requirements can be used to satisfy course requirements of the Biochemistry & Biophysics Ph.D. degree.

Students wishing to obtain the specialization must first gain approval of the Graduate Program Chair or QB liaison (Prof. Oprian or Prof. Gelles). This should be done as early as possible, ideally during the first year of graduate studies. For information on how to apply to the QB program, [see “How to Apply”](#).

2. Rotations and acceptance by dissertation advisor

All first year students are required to register for the research rotations (BCBP 300a,b). Every student is required to complete four rotations of nine weeks each in four different laboratories during the academic year (specific dates below). The choice of laboratory rotations is made jointly by the student, the chair of the graduate program, and the faculty member in whose lab the rotation is to take place. Students may choose advisors from any department within the Division of Science. The complete list of faculty research interests can be found on the [Life Sciences website](#).

During orientation week, students will attend a three-night faculty bazaar where faculty members will introduce their work. After, students will turn in a list of their top choices for the first rotation, and the faculty will make the final decision about the first rotation assignments. More details will be provided via email.

The remaining three rotations are the responsibility of the student to arrange with the appropriate faculty member ahead of time. We recommend that you arrange your rotations as early as possible. At the end of each rotation, the student will give an oral presentation of their research project to the Biochemistry Department.

By the end of each rotation, the student will also submit a written rotation report. One electronic copy should be sent to the program administrator in the Division of Science Graduate Affairs Office, one should be provided to the laboratory head in which the rotation was completed, and one should be given to the Rotations Committee Chair (Julia Kardon, kardon@brandeis.edu).

Rotation Schedule:

Start End/Presentation Report Due

Rotation 1: 8/29/22 - 10/28/22

Rotation 2: 10/31/22 (Mon) - 1/6/23

Rotation 3: 1/09/23 - 3/10/23

Rotation 4: 3/13/23- 5/12/23

Lab selection window: Monday 5/8/23 through Friday 5/19/23.

After the first year, research for the Ph.D. dissertation is carried out under the supervision of a faculty advisor. Advisors can be chosen from any department within the Division of Science. The complete list of faculty research interests can be found on the [Life Sciences website](#).

Dissertation advisors can be chosen ONLY during the specified time period at the close of the 4th rotation: May 8 - May 19, 2023. Choices must be made by Friday, May 19th. It is Biochemistry tradition/policy that both students AND professors are forbidden to discuss dissertation advising issues until the specified period.

Ordinarily, students choose a research laboratory immediately towards the end of the fourth laboratory rotation in May of the first year. However, some students elect to do a fifth rotation during the summer after the first year's courses are completed. In that case, the Ph.D. advisor must be selected before the beginning of the student's second year. Students unable to find an advisor willing to accept them by the beginning of the second academic year will not be permitted to continue in the Ph.D. program. If you have any questions about rotations, please contact Julia Kardon (kardon@brandeis.edu).

3. Teaching

All Ph.D. candidates are required to serve as teaching assistant for two courses, sections, or labs. This is usually done in the student's second year of study.

4. Propositions

Propositions are research proposals that the student writes and then defends in an oral exam. Each student must pass *two* propositions in order to obtain the Ph.D. degree. Each proposition is an original research proposal based on an understanding of current literature in specific fields of research. The student should identify an interesting and experimentally tractable question at the forefront of biochemistry or biophysics, and should design a plan to attack this question (and maybe even to answer it!).

The Inside Proposition should be in the general field of the student's dissertation research. And should have the format of a research proposal. The Outside Proposition is a proposal for research that does not cover the field of the student's Ph.D. research. Students may choose to complete either the inside or outside proposition first. At the time of exam scheduling, the faculty committee and Graduate Affairs Office must be notified of which exam is being taken.

Important Proposition Deadlines:

The 1st proposition **MUST** be completed by **January 6th of your second year**. The 2nd proposition **MUST** be completed by **May 12th of your second year**. Students that fail to meet this deadline may not be readmitted into the program for the next year.

Before the Oral Exam:

For both propositions, the chosen topic should be approved by the thesis advisor well in advance. **The examining committee, consisting of three faculty members including the thesis advisor, should be assembled in advance by the student and must be approved by the Chair of the Biochemistry & Biophysics Program.** Please fill out the "Proposition Committee Approval Form" in the Appendix, have it signed by the Chair, and return it to Anna in the Grad Affairs/Biochemistry Office either in person or by email. Please receive approval well in advance of your exam. **The Chair of the committee should NOT be the advisor.**

The student must inform the Grad Affairs Office of the dates of the proposition exams in advance. **Each member of the committee must be given a final copy of the written proposition no later than three days before the examination date.**

Oral Exam Information:

The student should prepare a 30-minute chalk talk presentation, which will in practice end up as a one-hour discussion. The student should bring a copy of the "Proposition Defense Form" (see Appendix) to the oral exam for the signatures of the committee.

After the Oral Exam:

The student will hand in or email the completed "Proposition Defense Form" to Anna in the Division of Science Grad Affairs/Biochemistry Office and will keep a copy. The form reports on the results of the written exam: pass / fail / pass with revisions, and the results of the oral exam: pass / fail. The Committee Chair will provide additional comments or instructions as needed (e.g. information about the types of revisions and

timeline for revisions). Students receiving a failing grade are ordinarily given the opportunity to repeat the defense within five weeks of the initial defense and the Committee Chair will provide an updated grade for this defense. Students with a “pass with revisions” grade should submit a new form once they have completed their revisions for their committee.

It is the responsibility of the student to choose the proposition committee (and get it approved by the Program Chair), to schedule the oral presentation, to reserve a room through the Biochem Office and to submit the written exam to the committee and scigradoffice@brandeis.edu.

Written Proposition – Detailed Guidelines:

Proposition topics are original research proposals formulated by the student. The subject of each proposition must be approved by the student's dissertation advisor. Propositions are academic exercises only; students do not actually perform the research proposed. A proposition defines a specific current research problem and proposes the experimental means to investigate it.

The proposition should clearly and explicitly define a goal of the proposed research. Usually, the goal is to answer a single, specific scientific question.

The proposition should make a convincing case, using appropriate literature citations, that achieving the goal would be scientifically worthwhile and should summarize (with references) relevant work done by others.

The proposition should also describe a practical plan of experiments by which the goal could be achieved. The plan should explicitly state the experimental methods to be used and contain sufficient detail, including literature citations, to allow the reader to evaluate its feasibility.

The proposition should be in NIH format. Specific Aims (limit: 1 page) plus Background, Significance, Experimental plan (limit: 6 pages, single spaced, including figures and legends, but not including references). The Specific Aims page should make it clear what specific question(s) the project will try to address. This should include citation of pertinent literature relating to the project.

We strongly encourage students to submit their proposition as a NIH NRSA F31 fellowship grant by the **December 8th, 2022 deadline** ([Dept. of Health and Human Services](#)) and the NSF GRFP grant by the **October 17th, 2022 deadline** ([GRFP](#)). **Please keep in mind that you should notify the Division of Science PreAward group (scipre-award@brandeis.edu) of your intention to submit an NSF GRFP at least one month before the deadline.** The Office of Research Administration holds F31 review sessions approximately 8-9 weeks before each NRSA deadline (so usually at the beginning of October) – email Christine DiBlasi (cdibiasi@brandeis.edu) for more information. In addition, the Program Chair can help you throughout this process.

5. Progress Meetings

Starting with the third year of study, the student meets with a faculty committee of three members at least once every academic year to discuss progress towards completing research and the dissertation. The committee, which includes the dissertation advisor, is chosen by the student, and its makeup should approximate that of the intended dissertation committee. **Students should not view these meetings as exams!** Their sole purpose is to facilitate the student's trajectory towards a successful dissertation.

The student should bring to the meeting the required form (see Appendix) which the committee members sign to indicate whether the student is making satisfactory progress toward completion of an acceptable dissertation. The student should then hand in the form to the Division of Science Graduate Affairs Office or email it to Anna: scigradoffice@brandeis.edu.

For the first Progress Meeting, (first held in the third year), the student should submit a written description of the general aims of the thesis research-project, and the progress made towards these aims, and the plan for the next year. In subsequent years, the meetings are more informal and do not require a written report. However, students often find it helpful to prepare a written outline to bring to the meeting. Meetings typically are held as chalk-talk style presentations to help guide the discussion.

At the beginning of the meeting, the committee will briefly discuss the student, and next, the advisor will step out, and the student will talk to the other committee members.

While students may arrange a progress meeting before the following deadlines, **students who fail to schedule their meeting by these deadlines are not considered to be making adequate progress toward their degree and may not be readmitted for the next academic year:**

- 1st meeting: held March-May at end of 3rd year and going into 4th
- 2nd meeting: held July-September at end of 4th year going into 5th
- 3rd meeting: held October-November of 6th year*

***After the fall progress meeting, a student in their 6th year needs to schedule a progress meeting every 6 months until they graduate, unless the student is given an exemption by the Graduate Program Chair because their graduation is imminent.**

Meetings must be held within this listed timeline. However, if a student's progress is deemed to be unsatisfactory by their committee, the committee may require that they meet again sooner (after a certain number of weeks or months, as determined by the committee). If a student is not displaying satisfactory progress, their committee will indicate and convey to the student their expectations for their next meeting. At the discretion of the progress committee and the Graduate Program Chair, students who are not displaying satisfactory progress may be placed on probation or may not be re-admitted into the program during the annual re-admission process in the Spring/Summer.

Before or on the day of the Progress Meeting with their Committee, students should plan to meet with their advisor (or the Graduate Program Chair, if a student does not feel comfortable speaking with their advisor) to review their Individual Development Plan (IDP). Please see section 6 for more information on the IDP.

Students should feel free to call a Progress Meeting at any time, i.e., before the scheduled time, if they feel that the advice of a committee would be helpful.

6. Individual Development Plan

An IDP is a career development tool that is used to a) maintain communication between you and your mentor(s) regarding your long-term goals and career development, b) help identify an appropriate career path based on your skills and interests, c) assess current and missing skills and abilities for the desired career path, and d) set specific goals to prepare for the desired career path. The IDP will evolve as the interests and experience level of the student changes over time.

Students in their third year and above will be required to complete an Individual Development Plan with their advisors before or on the day of their Progress Meeting. If the student does not feel comfortable speaking to their advisors about their career plans, they can meet with the Graduate Program Advisor instead. The student/advisor can choose the written IDP format that they prefer. The faculty must confirm by indicating on the Progress Meeting form that an IDP conversation has taken place and that a written document has been created or revised from the previous year. Example IDP forms can be found on the Brandeis Knowledge Base:

<https://kb.brandeis.edu/display/SCI/IDP+Templates> (use your Brandeis login to access the documents). IDPs will be private documents between the student and advisor (or Graduate Program Chair if this is whom the student met with).

7. Residency

The graduate school requires a student to have resident status at Brandeis (i.e., enrolled as an on-campus graduate student) for three years to receive the Ph.D. degree. Consult the Brandeis catalog and/or the Division of Science Graduate Affairs Office if you need more information on the residency requirement.

8. Dissertation

The Ph.D. candidate must write a dissertation that summarizes the results of an original investigation of an approved subject and which demonstrates the competence of the candidate in independent research. In general, students are expected to have at least one first-author paper in a format ready to be submitted to a journal. The student must give a public seminar on the dissertation research.

A final oral examination based on the dissertation must be passed. The defense committee will be composed of 3-4 faculty members, one being the dissertation advisor. At least one of the members of the defense committee should be chosen from outside the Biochemistry & Biophysics Program (and is customarily from outside the University). The defense will consist of a public portion (lasting approximately 1 hour) and a private examination after the public defense in which the committee meets separately with the student.

It is the responsibility of the student:

- to ensure that all graduate program requirements are satisfied before the dissertation exam.
- to ensure that the dissertation is in a form and format acceptable to GSAS and is submitted by the required deadlines (students should obtain specific instructions for the preparation of the dissertation directly from the Division of Science Graduate Affairs Office and GSAS before starting to prepare the dissertation).
- to arrange a time and date for the Ph.D. defense at least two weeks in advance. • to fill out and return the GSAS Defense Calendar Submission Form at least two weeks prior to the defense.
- to give a copy of the dissertation to each committee member, **as well as a copy to Biochemistry and Division of Science Graduate Affairs Office**, at least two weeks before the defense. You may retrieve the copy left in the office following the defense.
- to come to the examination with the form required by the university: Ph.D. Dissertation Defense and Oral Exam form (obtained from the registrar's office website).
- to obtain the signatures of the members of the dissertation defense committee and, as soon as possible after the defense, to email a copy of this form to the Biochemistry and Division of Science Graduate Affairs office (scigradoffice@brandeis.edu) and to the Registrar's Office (registrar@brandeis.edu).

Students have not fulfilled the dissertation requirement until the final version of the dissertation, including any changes required by the committee and GSAS, is submitted to GSAS through ProQuest. The Report on Ph.D. Revisions form must be submitted to the Registrar before the dissertation is submitted. For theses that include copyrighted material (for example, text already published in journal articles), copyright permission must be obtained from each journal and submitted to GSAS with the dissertation. There is usually no need to get permission from co-authors, since it is usually the journal, not the authors, that owns the copyright.

The Graduate School requires that the oral exam be retaken if the final thesis is not submitted sufficiently soon after the exam; if delays are anticipated, please consult the Division of Science Graduate Affairs Office.

Summary of deadlines for Ph.D. degree requirements

Year	Requirement	Timeline/Deadline
1	1 st rotation (Aug 29, 2022 – Oct, 28, 2022)	Presentation: 10/28, Report Due: 10/31
1	2 nd rotation (Oct 31, 2022 – Jan 6, 2023)	Presentation: 1/6, Report Due: 1/9
1	3 rd rotation (Jan 9, 2023 – March 10, 2023)	Presentation: 3/10, Report Due: 3/13
1	4 th rotation (March 13, 2023 – May 12, 2023)	Presentation: 5/12, Report Due: 5/15
1	Pass first-year courses	End of the second semester
1	Be accepted by dissertation advisor	May 19 th , 2023
1 or 2*	NSF grant	October 17, 2022
2*	NIH fellowship	December 8, 2022
2	1 st proposition (‘inside’ or ‘outside’)	January 6, 2023
2	2 nd proposition (‘inside’ or ‘outside’)	May 12, 2023
3	1 st progress meeting and IDP	March-May
end of 4 th , start of 5 th	2 nd progress meeting and IDP	July-September
End of 5 th year	Finish 7 Course Requirement	End of second semester
6	3 rd progress meeting and IDP	October-November

***indicates a strongly encouraged but optional deadline.**

Note: For the purpose of program deadlines, "end of the second semester" refers to the date listed in the Brandeis academic calendar as the date final grades are due, and "before the start of year" means before the first day of classes.

Information for first-year students

First year students will be emailed information about orientation activities, registration, and class schedules. **It is mandatory that you attend the Orientation Meeting scheduled for your program.** Please note that when you are on campus, you will have a mailbox (located in the hallway outside the Biochemistry/Division of Science Graduate Affairs Office). Your primary administrative contact in the graduate affairs office will be Anna Esposito in the Biochemistry and Division of Science Graduate Affairs Office in Ros/Kos 3-RK02. Please also email the Biochemistry & Biophysics Director of Graduate Study (Dan Oprian) to discuss any questions related to your course selections. During orientation, Dan will review course selection and Julia Kardon will review rotations.

Graduate Teaching Assistant Information

Assignments. Over the course of graduate study, each Ph.D. student is required to teach undergraduate sections, courses, or labs. These are usually done in the second year. TA assignments are made before the summer prior to the commencement of teaching responsibilities. In rare cases of unexpected enrollment shifts, cancellation or addition of courses, or inequities in work loads, assignments may be changed with little notice. In such a case the teaching assistants concerned will be notified as soon as the changes are known.

Union Information. Students who are TA'ing as part of their stipend are part of the union for the time period of TA'ing only.

Responsibilities. Graduate teaching assistants and faculty members will discuss course requirements, attendance policies and the range of graduate responsibilities (e.g. in class or lab, outside class or lab, administrative duties, technical assistance). If graduate teaching assistants are to grade undergraduate work, the faculty member and TA will discuss the number of assignments, grading procedures and standards and an expected range of grades. Graduate teaching assistants should hold weekly office hours as needed for the course.

Graduate teaching assistants are seldom asked to tutor students requiring additional help. If regular tutoring is needed to address difficulties in the course, the graduate student will refer the problem to the professor and, if necessary (and agreed upon), to the appropriate agency on campus for additional assistance.

All students serving as TAs must attend GSAS TA training, generally held at the start of the Fall semester. Faculty members will also advise graduate teaching assistants on

policies for academic honesty at the beginning of the term, at which time procedures for alerting the proper university officers and dealing with such matters will be agreed upon.

Graduate teaching assistants are encouraged to discuss teaching with the professor or with a member of the graduate committee. Graduate teaching assistants are advised to consult teaching materials available from the Office of the Dean of Arts & Sciences and Brandeis's Center for Teaching and Learning and to attend teaching seminars sponsored by the Graduate School.

Every attempt should be made to resolve difficulties arising between graduate teaching assistants and faculty members. If such resolution is impossible, official grievances should be made per the stated procedures in the student handbook.

Graduate teaching assistants are encouraged to document teaching experiences for future job searches. Faculty members should agree to provide letters of reference for teaching which will be included in the student's departmental file.

Miscellaneous information

As a graduate student, your only official affiliation with Brandeis is as a member of the graduate program, not of a department (e.g., Biochemistry) or center (e.g., Volen).

The following is information from the Registrar's office which all students (both first year and beyond) should be aware of:

"Every semester some graduate students completely overlook their obligations to enroll in classes, thinking it a matter of little importance which can easily be corrected at any time. *This is a false impression.* We will make a concerted effort to reach unregistered and unenrolled students in advance of the deadline. But thereafter, we are not at liberty to enroll students in courses; we will presume they are not in attendance, and process their withdrawal from the University, which in turn will invalidate any financial support they may be receiving."

However, first-year students should not register until they discuss their academic program with the Director of Graduate Study.

Transition from M.S. to Ph.D. Program

Students who have earned a M.S. at another institution will be admitted as normal first year students. Students in the Brandeis Biochemistry & Biophysics M.S. program who apply to and are accepted into our Biochemistry & Biophysics Ph.D. program may be transitioned into the program and considered as third year Ph.D. students. Master's students who plan to apply to our Ph.D. program should first talk to their Master's advisor in July after their first year. The Ph.D. program graduate chair will then meet with these applicants before the beginning of the semester of their second year to

communicate their potential for our Ph.D. program. An admissions decision will be made as early as possible to expedite the transition to Ph.D. These students must complete the same requirements as students who enter directly as Ph.D. students, with the following alterations to their timeline:

Matriculation date:

M.S. students will enter the Ph.D. program during the summer after their M.S. year and matriculate as Ph.D. students that summer, typically with a start date of June or July 1st. The start of stipend payments will coincide with their matriculation date. Any exceptions to this timeline must be discussed with and approved by the graduate committee.

Courses:

Courses taken during the M.S. year may count towards the Ph.D. course requirement, if the program chair approves the courses. M.S. Students who are strong candidates for the Ph.D. program are encouraged to take BCHM102 in the fall of their second year at Brandeis, and with permission of the graduate chair and instructor, may take BCBP200 in the spring of their second year. These students are expected to complete the remaining classes as soon as possible after transitioning to the Ph.D. program.

Rotations and Selection of Dissertation Lab:

In most cases, M.S. students who transition to the Ph.D. program are expected to continue their research in the same lab in which their Master's Thesis was completed. Exceptions to this will be considered on a case-by-case basis. Should a lab change occur, the possibility of additional lab rotations before changing labs will be discussed on a case-by-case basis.

Teaching Obligations:

M.S. students who transition to the Ph.D. program will not be required to serve as teaching assistants.

Master's Thesis:

M.S. students will defend their master's thesis according to the requirements of the M.S. program handbook.

Outside and Inside Examinations:

For a master's student who transitions into our PhD program, the inside and outside propositions are required during their first year in the PhD program (their 3rd year at Brandeis). Students follow the same timeline and guidelines for these propositions that 2nd year Ph.D. students follow.

Pocket Handbook - Graduate Program in Biochemistry & Biophysics

Here's what you have to do - and when:

First year

Mandatory attendance at the Orientation Meeting.

Meet with the Director of Graduate Study (Dan Oprian) to plan out your academic courses. **Email Maria Berlis in the Biochemistry and Division of Science Graduate Affairs Office** (Ros/Kos 3-RK02) with your student ID, so that she can give you the appropriate card access. The lab you will need access to will depend upon your rotation assignment; the Biochem/Division of Science Grad Affairs Office can direct you to the appropriate department to obtain lab access. You will be required to **take online safety training** before being granted building access.

Register for classes.

Start completing your **course requirements**; **You must take:** BCBP 300a,b and BCBP 200b. Attend the RCR Mini-course. During the 4th rotation, choose a Ph.D. thesis advisor. In the summer, you will receive T.A. assignments for next year

Second year

Continue towards completing your **course requirements**.

Register for **BCBP 401** from this point forward.

Carry out **T.A. assignments**.

Prepare your **1st Proposition Defense** (written and oral), to be completed by Jan.6th.

Prepare your **2nd Proposition Defense** (written and oral), to be completed by May 12th.

Third year

Continue towards completing your **course requirements**.

Choose **Progress-Meeting** committee and schedule meeting in March/April/May and IDP meeting with advisor. You will be prompted to do this, but it is your responsibility to schedule your meeting.

Succeeding years

Complete **course requirements**.

Yearly **Progress and IDP Meeting**: you will be prompted to arrange this, but it is your responsibility to schedule your meeting.

You should aim to have completed your Ph.D. research by the end of year 5. This does not always (or often) happen, but you should certainly be finished in year 6.

Hint: As you begin to see light at the end of the tunnel, start to think about where you want to do postdoctoral research *12-18 months in advance*. Contact prospective postdoc advisors and give them plenty of lead-time in knowing that you're interested in working with them. An early-bird attitude will enhance the likelihood of your acceptance into your preferred postdoctoral lab.

Resources for graduate students and ways to get help

If at any point during your graduate career, if you have questions/concerns or are hitting challenges, there are many people here on campus that are here to help and support you. Before we go into specifics of who to go to for help, please know that the majority of people on campus are “responsible reporters.” This means that they are obligated to share any information that has been disclosed to them regarding discrimination, harassment, or sexual misconduct with the Office of Equal Opportunity. If you are hoping to have a confidential conversation about one of these topics, you will find a list of confidential resources later in this section.

Most issues can be best handled by those closely associated with your graduate program or with Division of Science staff and faculty, so we encourage you to seek out assistance from within this group first. We recognize that sometimes there may be a particular person that you are more comfortable speaking with or that one faculty member may be holding multiple roles/positions, but we suggest that you reach out to for assistance in the following general order (see schematic at the bottom as well):

- **Your PI/Advisor:** Your first stop should be your PI/advisor, if you have chosen one by this point. Your advisor will have the most intimate knowledge of your research/program progress and career goals, and is here to help train and guide you. PIs usually have regular meetings with their students, and you are encouraged to use this time to talk about anything that’s on your mind— not just your latest research results. If you are still rotating, you should feel comfortable talking to your rotation PI.
- **A member of your committee (once you have one):** You are always welcome to reach out to individual faculty on your committee. While not tied to your progress as closely as your PI/advisor, they will be familiar with your progress in your program and will have sufficient background knowledge on your project and your goals to provide personalized support. Committee members will be especially good resources if you have concerns about some aspect of your project design or results. Keep in mind also that while annual meetings with your committee are required, you can call additional meetings at any time.
- **DGS (Director of Graduate Study, or Chair of your Grad Program):** This faculty member oversees your grad program as a whole and is here to support all students in the program. The DGS will be extremely knowledgeable in the program’s requirements and are also tuned in to the current GSAS and University policies. If you are early on in your grad program and have not yet chosen an advisor, the DGS is here to support you. After you have an advisor, this may be a good place to start if a few students from different labs have shared concerns that they would like to discuss. The specific faculty member who fills this role may change from year-to-year, so check with your program administrator or check your program website for the current DGS first. In academic year 2022-2023, your DGS is Dan Oprian.

- **Your Program's Department Chair:** This faculty member oversees the department that your grad program falls under and is a step above your DGS. If you have concerns that aren't necessarily specific to your grad program but are relevant to the department as a whole, the chair may have good insight. This may be a good person to talk to if concerns are shared with other populations in the department such as staff, postdocs, or undergraduates. The specific faculty member who fills this role may change from year-to-year, so check with your program administrator or check your program website for the current Chair. In academic year 2022-2023, your department chair is Doro Kern.

- **The Head of the Division of Science:** This faculty member oversees the entire Division of Science and works to support all of the departments and graduate programs within the sciences. This would be a good person to have a conversation with if people from different graduate programs or departments have a shared concern or issue that they would like to raise. The head of the Division of Science has frequent meetings with individual program and department chairs, as well as with leaders across the University, so they will be knowledgeable of current Division and University practices. They are here to support and advocate for the entire science community. As with the DGS, the faculty member in this role can change from time-to-time. In academic year 2022-2023, the chair of the Division of Science is Bulbul Chakraborty.

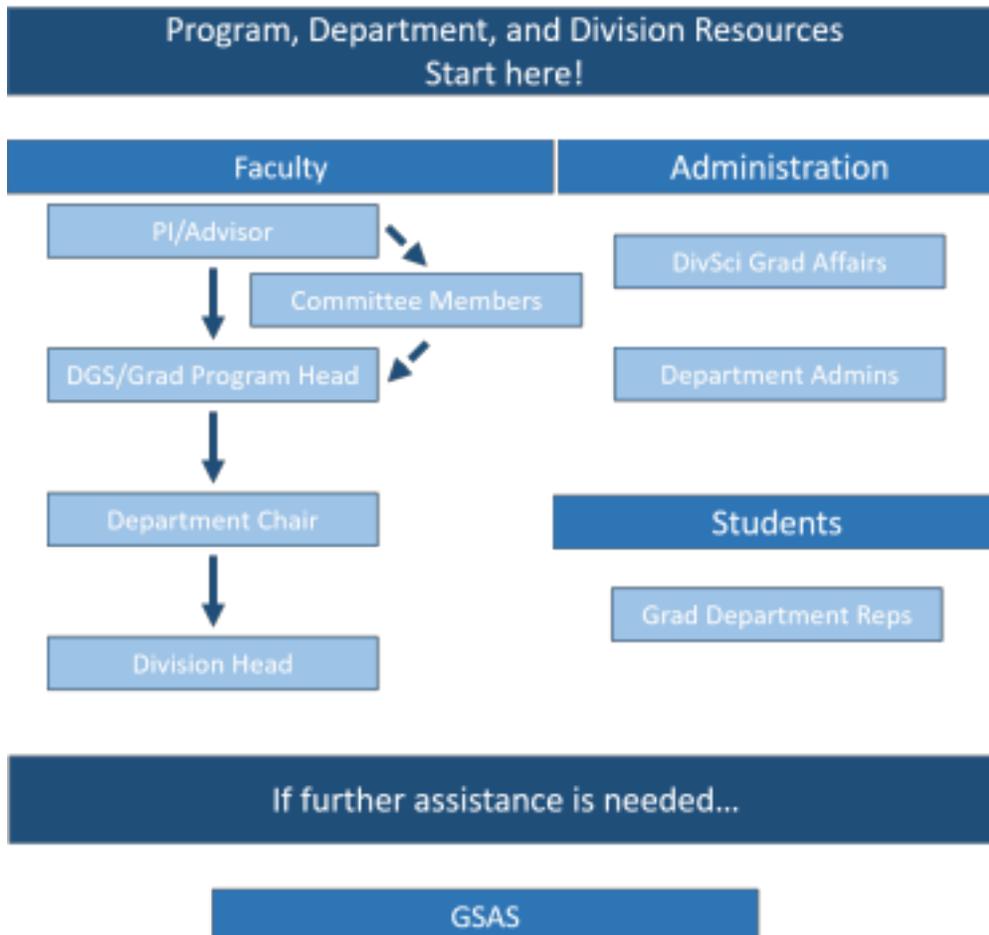
In parallel to these program-level and Division-level faculty resources, there are non faculty resources within the Division who you can go to for help. The following are good places to go to for help, you should go there first with administrative questions:

- **The Division of Science Grad Affairs Office:** This office is the administrative home for most of the graduate programs within the Division of Science, including yours. The staff here work closely with grad students and with faculty to administratively oversee those graduate programs and student progress. The staff in this office know your program's faculty, are well-versed in your program's requirements and policies, and are up-to-date with the other sources of support on-campus. If you are unsure about whom to talk to first, the DivSci is often a good place to start as they can help you decide whom to approach and how to have that conversation.
- **Your Department Administration:** These staff work in your department's office and are here to help their entire department community. These staff may be a bit less familiar with your graduate program requirements, but they know your department's faculty and any non-grad-program details about your department well.
- **The DivSci Pre-Award Office:** If you are applying for grants or fellowships, please loop these staff in. They may be able to provide guidance and help you

navigate the submission process.

- **Your program’s Grad Department Representatives (GDRs):** These graduate students were elected to represent the student body. One of the roles of the GDR is to bring concerns from students as a whole to the program faculty or to GSAS, so if you have a concern that you are comfortable discussing with your GDR it’s a good idea to let them know. They cannot bring these concerns to the faculty to advocate for all students if they don’t know about them, and there may be other students with similar concerns. Your GDRs may hold a student “town hall” once a semester or year to bring up issues, and this is a good forum to discuss some topics that may be weighing on your mind.

Only if you have not made sufficient progress in those discussions, you could then escalate the conversation above the Division of Science by speaking with the [Graduate School of Arts and Sciences \(GSAS\)](#). GSAS oversees all graduate programs within the school of Arts & Sciences at Brandeis and is invested in the success of all graduate students in these programs. Depending on the topic that you have raised with faculty or administrative staff, they may have already contacted GSAS for advice/assistance on how to help or to handle the next steps. If you’d like to reach out to GSAS for help, we recommend that you connect with Becky Prigge, Assistant Dean of Student Affairs.



Outside of the general hierarchy of places to go to for help there are various other entities on campus here to support students. These resources on campus are dedicated to

supporting graduate students:

- **[Office of Graduate Affairs \(formerly known as “Graduate Student Affairs”\)](#)**: This office is a home and source of support for all graduate students at Brandeis, including those studying at the Heller School, the Rabb School, or the International Business School. Graduate Student Affairs provides students with information and events about graduate life at Brandeis and community resources. If you’d like to reach out to this group, we recommend that you contact Jessica Basile, Assistant Dean of Graduate Student Affairs or Steve Weglinski, Assistant Director of Graduate Student Affairs.
- **[The Graduate Student Association \(GSA\)](#)**: Supported by Graduate Student Affairs, the GSA is an independent student body that represents all graduate students and provides a platform for graduate students to raise issues and concerns and build community. If you have a concern about an issue affecting graduate students that extends past your program, department, and the Division of Science, the GSA is a good group to talk to. To connect with them, visit their website to see the current year’s grad student executive committee.

There are some offices on campus that specialize in specific topics and who will almost always be the best resource for those topics:

- **[The Office of Research Administration \(ORA\)](#)**: ORA, which reports to the [Vice Provost for Research](#), can help with issues related to research integrity and compliance. If you want to discuss the possibility of research misconduct, you may wish to report things there directly.
- **[The International Students and Scholars Office \(ISSO\)](#)**: ISSO supports all of Brandeis’ international students and scholars. This office determines visa eligibility and prepares and issues visa documents. If you ever have any questions about your Visa or any of the associated regulations (e.g. travel, CPT, OPT), you should reach out to your ISSO advisor. They can advise students on rights and responsibilities and provide guidance regarding issues that may impact your legal status. Their website also has a collection of useful information for international students.
- **[Student Accessibility Support](#)**: If you are a student with a disability and in need of academic or non-academic accommodations, this office can support you and help you navigate this process. The definition of a person with a disability is broad, and many students who do not think of themselves as students with disabilities may qualify for support under the law. Even if you are not sure if you will qualify, you are encouraged to reach out to SAS.

As mentioned at the start of this section, there are some topics that responsible reporters on campus cannot keep confidential, and those are issues of discrimination, harassment, or sexual misconduct. The office on campus that addresses these issues is the **[Office of Equal Opportunity \(OEO\)](#)**. OEO provides information regarding support resources, information about taking action (internal resolution processes and criminal action), inquiries and investigations into concerns, processes to address grievances, and training

for the Brandeis community. Please visit their website for contact information and steps (and an online form) to file a report. You are welcome to contact a resource listed above for support or advice about these topics, but they will be obligated to share the issue with OEO.

If you would like to have a *confidential* conversation with someone on campus, the following are our on-campus confidential resources:

- [**The Brandeis Counseling Center \(BCC\)**](#): The BCC provides counseling for students in times of stress, and encourages them to ask for help with their most immediate concerns. Counseling is available to all students regardless of whether they have the Brandeis student health insurance plan or not. If you are struggling and need someone to talk to, we encourage you to reach out to the BCC.
- [**The Prevention, Advocacy, and Resource Center \(PARC\)**](#): PARC provides education, empowerment and support related to sexual assault, sexual harassment, dating/domestic violence and stalking. This group is a confidential, student-centered resource serving all members of the Brandeis community who have been impacted by violence.
- [**The University Ombuds**](#): This office is a confidential, independent, impartial, and informal resource for all members of the Brandeis community. They provide a safe space to talk confidentially and off-the-record about difficult situations and offer conflict resolution support.
- [**The Chaplains in The Center for Spiritual Life**](#): The Brandeis chaplains offer counseling, support, and community to students of all faiths. They oversee on-campus worship and student religious life while also offering community support in times of joy and crisis.

**Biochemistry & Biophysics Program
Proposition Committee Approval (Appendix)**

Proposition committee approval form for:

(student's name)

This inside/outside (please circle one) proposition defense date will be:

(date)

The committee will include:

_____ (thesis advisor)

Approval signature of Program Chair Dan Oprian:

Date: _____

Instructions for the student: Please give the completed form to the Biochemistry and Division of Science Graduate Affairs Office, Ros/Kos 3-RK02.

**Biochemistry & Biophysics Program
Proposition Defense Form (Appendix)**

Proposition defense form for: _____
(student's name)

This inside/outside (please circle one) proposition defense took place on

(date)

The grades were:

Written proposition -- pass / fail / pass with revisions;

Oral examination – pass / fail;

signature – **NOT advisor** (chair printed name) (chair

(committee member signature) (committee member printed name)

(dissertation advisor signature) (dissertation advisor printed name)

Additional Comments (if applicable)

Instructions for the student: Give a copy of this form to the examination committee chair before the exam.

Instructions for the chair of the examination committee: Please give the completed form to the Biochemistry and Division of Science Graduate Affairs Office, Ros/Kos 3-RK02.

**Biochemistry & Biophysics Program
Progress Meeting form (Appendix)**

1) The undersigned held a meeting with

_____ on _____
Student's name date

to discuss his/her progress toward the completion of the Ph.D. degree.

2) The student and advisor have had a conversation about the student's Individualized Development Plan and a document has been created or revised from last year.

Yes / No

Comments – If an IDP meeting with the advisor hasn't taken place, please indicate when this will take place:

(committee member signature) (committee member printed name)

(committee member signature) (committee member printed name)

(dissertation advisor signature) (dissertation advisor printed name)

Instructions for the student. Photocopy and give original to the Biochemistry and Division of Science Graduate Affairs Office, Ros/Kos 3-RK02. Please also keep a copy in your own files.