Post-baccalaureate Program Handbook
2025-2026 Mathematics Department
Brandeis University

The Brandeis Mathematics Graduate Program offers a non-degree Post-baccalaureate Program. Students leverage the Postbac program either to apply for graduate programs in math or other fields, or to build quantitative skills for their work.

Full-time students will register for at least 12 credits of courses every fall and spring semester. If you are considering changing to part-time, please contact the Director of Graduate Study (Tyler Maunu) and your Academic Administrator (Anna Miamis) because this could impact your student loans and your student health insurance.

A minimum passing grade for a course to meet your program requirements is a B-.

The purpose of this handbook is to provide more program details than are included in the Math Bulletin. It is meant to complement various other sources which apply more broadly to all students at Brandeis University (e.g., the Brandeis University Bulletin, the Rights & Responsibilities Handbook, and information on Student Accessibility Support) or to students in the Graduate School of Arts and Sciences (e.g. the GSAS Student Handbook). Please make sure you read the Bulletin carefully:

- GSAS: https://www.brandeis.edu/registrar/bulletin/provisional/gsas.html
- Math: https://www.brandeis.edu/registrar/bulletin/provisional/courses/subjects/4700.html

This handbook will answer many, but probably not all, of your questions. Further questions about the graduate curriculum and requirements should be directed to the Director of Graduate Study (DGS): Tyler Maunu. Concerning non-academic matters such as office assignments and general operations in the Department, see the Mathematics Department administrator, Martha Lagace. For academic paperwork and information about different on campus resources, see the Grad Affairs Office Academic Administrator, Anna Miamis.

1. Postbac Program

Please be aware that the University Bulletin is a legal document governing all academic regulations. If anything in this handbook contradicts the Bulletin, the Bulletin will take precedence. In addition, please be aware that in the event of a public health emergency or other major event, the procedures listed in this handbook may change.

The Postbac Program takes two semesters to complete the required six courses. Full-time Postbac students will register for at least 12 credits of courses every fall and spring semester.

1.1 Required Courses. The two required courses are Math 15a Applied Linear Algebra and Math 20a Multi-variable Calculus. If a student has already taken these courses, they may choose to substitute these courses with other electives; please consult with the DGS, if this is the case.

1.2 Elective Courses. Students take four more elective math courses that are approved by the Director of Graduate Study.

1.3 A typical program for students with bachelor's degrees in mathematics or science who are preparing for graduate school should consist of classes to be chosen according to prior background. Particularly relevant classes for fall semester courses are:

- The foundational courses: MATH 15a (Applied Linear Algebra), MATH 20a (Multi-variable Calculus), and MATH 23b (Introduction to Proofs);
- And/or for students having already covered the foundational courses, elective classes such as 36a (Probability), 37a (Differential Equations), 39a (Introduction to Combinatorics).
- For the most advanced students, the 100-level courses such as 100a (Introduction to Algebra), and 110a (Introduction to Real Analysis, Part A) are also interesting options.

Particularly relevant classes for spring semester courses are:

- Three electives such as the ones listed above or 36b (Mathematical Statistics), 35a (Advanced Calculus and Fourier Analysis), any 100-level course, any cross-listed course (at most one).
- Occasionally, some motivated Postbac students take one or two of the first-year graduate classes offered at Brandeis.

1.4 A typical program for students with bachelor's degrees in another field who wish to expand their quantitative skills might consist of:

- Fall term: MATH 15a (Applied Linear Algebra), MATH 20a (Multi-variable Calculus), MATH 36a (Probability)
- Spring term: MATH 36b (Mathematical Statistics) and two additional electives

Additional Suggested electives: MATH 23b (Introduction to Proofs), 28a (Introduction to Groups), 28b (Introduction to Rings and Fields), 35a (Advanced Calculus and Fourier Analysis), 37a (Differential Equations), 39a (Introduction to Combinatorics), Math 40 (Introduction to Applied Mathematics), MATH 121a (Mathematics for Natural Sciences), Math 123a (Principles of Mathematical Modeling, MATH 124a (Convex Optimization) and any cross-listed course (at most one).

2. Seminars

There are seminars and numerous other activities that graduate students benefit from, academically and otherwise. You are encouraged to take advantage of the opportunities available to you as a student in the department, at the university, and as part of the Boston area mathematical community. For a full listing of seminar times and dates, please visit the Math Department "Talks" webpage: https://www.brandeis.edu/mathematics/talks.html.

2.1 Seminars. The department has a variety of (usually) weekly seminars. You are most welcome at all seminars. The *Everytopic Seminar* in particular aims to expose graduate students and undergraduates to research topics in mathematics and occasionally related areas, such as physics and computer science.

2.2 *The Graduate Student Seminar*, organized by the Ph.D. graduate students, is one in which the students lecture to each other on topics of interest and eat pizza.

The Joint Brandeis-Harvard-MIT-Northeastern Colloquium is an ad-hoc event that rotates among the four universities and meets at Brandeis 1 or 2 times a semester. The speakers are leading mathematicians and the talks are often accessible to graduate students. The department often takes the speaker to dinner afterwards and may subsidize dinners for several graduate students.

The Brandeis Mathematical Biology Seminar has the purpose of bringing together experimentalists and theorists. It is organized by the groups of Thomas Fai, Jonathan Touboul, and Yangyang Wang in the Department of Mathematics at Brandeis University, three interdisciplinary research groups applying mathematical models to biological sciences.

The New England Dynamics and Number Theory Seminar features research talks on ergodic theory, homogeneous dynamics, number theory, and their interactions.

The Topology Seminar features invited guest speakers frequently presenting cutting-edge research, and you are invited to engage with them. Topology seminar talks are usually preceded by a 45-minute "pre-talk" to provide all attendees with a common foundation for engaging with the main talk.

The Combinatorics Seminar is an introductory seminar for combinatorics. The talk aims to be accessible to first-year graduate students.

There are a number of informal learning seminars on topics of interest to students in a particular area. In the past academic year, this included working seminars on dynamics and number theory, modular and automorphic forms, and other topics.

There are many other seminars in the Boston area that are regularly attended by Brandeis faculty and students—MIT's Combinatorics Seminar, Harvard's Number Theory Seminar, the Harvard-MIT Algebraic Geometry seminar, Harvard's Gauge Theory and Topology Seminar, the Boston College Geometry and Topology Seminar, and the Boston University Algebra Seminar, to name a few.

3. Professional Development

3.1 Planning for Program Completion. If you are going to apply to graduate programs, we recommend that you meet with the Director of Graduate Study early on in the semester to seek advice on your personal statement and letters of recommendation. In preparation for a job search, we highly recommend creating a Brandeis Handshake account (Brandeis's equivalent of LinkedIn: https://brandeis.joinhandshake.com/login) and making an appointment with the Brandeis GSAS Center for Career and Professional Development. The Center (https://www.brandeis.edu/gsas/professional/index.html) provides one-on-one coaching on interviewing, networking, resumes and CVs. During the semester, you can read postings on Handshake and emails about career-related networking events, such as data science or computer science job fairs.

3.2 Course Assistants and Graders (non-union positions). These hourly paid positions may sometimes be available on a per-semester basis depending on course enrollment and budget. In this case the department would recruit to fill these positions.

4. Other Program Information

4.1 The ELP program. The university's English Language Program (or ELP) program provides English language support. Any incoming GSAS student whose admission letter includes an English-language diagnostic exam requirement must take the ELP exam in order to determine if English language coursework is necessary during the first year of study. The diagnostic exam helps ELP accurately determine the level of English proficiency and whether a student will require language and communication support in order to be successful and have a positive overall experience at Brandeis. The exam takes place each August during GSAS Orientation and each January for midyear students. ELP will contact students with details prior to their program start date. If you are asked to take an ELP class, then attendance and participation are required in order to maintain good academic standing, and a passing grade is a university requirement for graduation.

4.2 Social events. The department's friendly and informal atmosphere fosters interaction among faculty and students and enhances the environment for learning and research. A variety of social events contribute to this atmosphere. One or more graduate students may volunteer on a rotating basis to host an afternoon tea in the department lounge each week when classes are in session. One or two days each semester, the Joint Colloquium (see §2.1) is held at Brandeis; it may be preceded by refreshments in the department and followed by dinner at a local restaurant. In addition, there are several annual events, usually a Welcome Back lunch in September, a holiday party, and a spring barbecue/graduation celebration.

5. Math Dept. Administrative Information

The Director of Graduate Study is responsible for overseeing the instruction and advising of graduate students in the mathematics department. This responsibility includes making recommendations to the university concerning admission, readmission, and the granting of graduate degrees. Another resource is the Academic Administrator in the Graduate Affairs Office, who assists the Director of Graduate Study with academic matters and tracking student progress. If the Director of Graduate Study is unavailable or unable to address a particular concern, it should be brought to the attention of the Department Chair.

5.1 Program Advising. All students should meet with the Director of Graduate Study at the beginning of each semester to discuss courses and plans for the semester and progress towards the degree. The Director of Graduate Study serves as the primary advisor for all postbac students.

5.2 Program Evaluation. The mathematics faculty meets at the end of each semester to evaluate the graduate students, and a progress letter is sent to students in May (if the student is continuing into a second year in the program). If there are any concerns about student progress after the fall semester, this will be communicated to the student. Each faculty member who has taught the student reports on the student's performance. Minor problems are handled informally by the Director of Graduate Study. Major problems result in a letter to the student and a meeting with the Director of Graduate Study. These letters are usually quite serious and warn of the student's possible required withdrawal from the program if performance does not improve.

5.3 Tuition Scholarships. Most of our students, when admitted to the program, are eligible for merit-based or need-based financial aid from Brandeis in the form of reduced tuition. Students should contact GSAS regarding this and other financial aid opportunities, such as student loans. For financial aid questions, please email:gsasfinaid@brandeis.edu. More information can be found here: Aid for Master's Students | Financial Aid | Graduate School of Arts and Sciences (GSAS) | Brandeis University

5.4 Student Rights & Responsibilities. The university's Rights and Responsibilities Handbook sets forth policies governing rules of conduct that apply to all Brandeis students. The Rights and Responsibilities Handbook also explains university policies.

5.4.1 Math Department Responsibilities. Within Brandeis, the Mathematics Department continually strives to form a welcoming and open community that values research and learning and cultivates an atmosphere of mutual respect and support for fellow students, faculty and staff. As a graduate student in the department, you share responsibility for helping develop and sustain a friendly, engaged and productive environment.

On a less lofty note, we have to remember to take care of the physical environment as well as the intellectual one, and keep the shared offices, lounge, and kitchen in healthy and safe condition.

6 Resources for Graduate Students and How to Get Help.

At many points during your graduate career you will probably have questions you'd like to ask someone, great ideas you'd like to share, or concerns you'd like someone to address. Please know that there are many people here on campus to answer those questions, help, and support you. Before we go into specifics of who to ask 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 addressed by those closely associated with your graduate program or with the School of Science, Engineering and Technology staff and faculty, so we encourage you to seek assistance from 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 them 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 this is a good time to bring up concerns. If you are in a program with lab rotations and you are still rotating, you should feel comfortable talking to your rotation PI.

- **A member of your committee (once you have one, if your program has advisory committees):** You are always welcome to reach out to any faculty member 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. Also keep in mind also that while annual meetings with your committee may be 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. They will be extremely knowledgeable in the program's requirements and are also tuned in to the current GSAS and University policies. Early in your grad career when you have not yet chosen an advisor, it is the DGS's job to support you. Later on, the DGS may be a good person to contact if a few students from different labs have shared concerns. 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.

- **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. Chairs are good 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.

- **The Head of the School of Science, Engineering and Technology:** This faculty member oversees the entire School of Science, Engineering and Technology, and works to support all of the departments and graduate programs within the sciences. The head of the School of Science, Engineering and Technology has frequent meetings with individual program and department chairs, as well as with leaders across the University, so they will be knowledgeable about current Division and University practices. They are here to support and advocate for the entire science community. Talk to them if people from different graduate programs or departments have a shared concern or to raise. In particular, concerns about research integrity should be brought to the attention of the Head of the School of Science, Engineering and Technology. As with the DGS, the faculty member in this role can change from time-to-time. In academic year 2025-2026, the Interim Dean of the School of Science, Engineering and Technology is Susan Birren.

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:

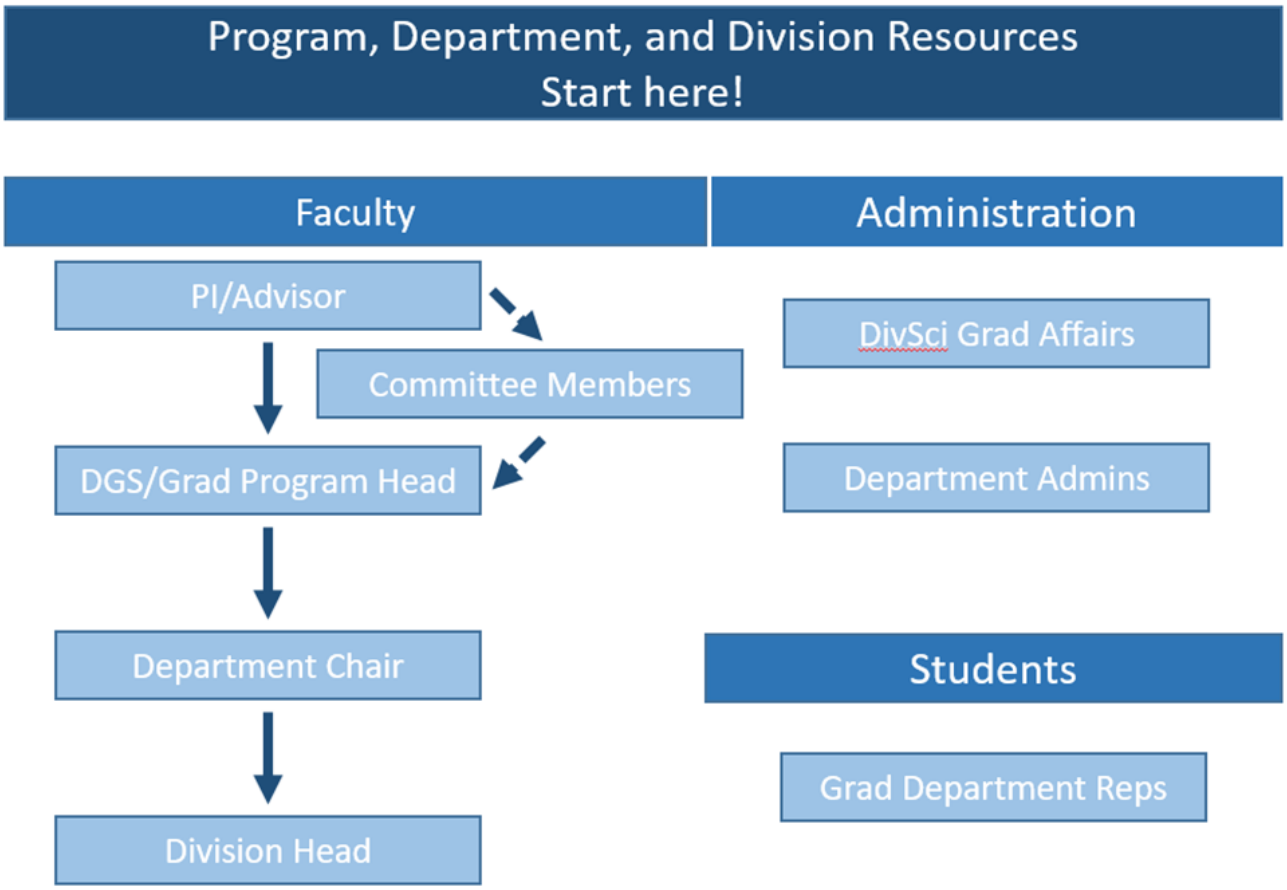
- **The School of Science, Engineering and Technology Grad Affairs Office:** This office is the administrative home for most of the graduate programs within the School of Science, Engineering and Technology. The staff here work closely with grad students and faculty to administratively oversee those graduate programs and to monitor 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 who to talk to first, the DivSci Grad Affairs Office is often a good place to start as they can help you decide who to approach and how to have that conversation. Within this office, either Anna Miamis, Anne Lazerson, or Jane Theriault is the primary contact for your graduate program. You should also feel free to contact Maryanna Aldrich, who oversees this group.

- **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. If you are in the Computer Science or Psychology graduate program, your department office serves the role described above for the DivSci Grad Affairs Office.

- **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 in your graduate program. 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.

Below is a flow chart demonstrating the general hierarchy of sources of support:



Outside of the general hierarchy of the School of Science, Engineering and Technology 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:

- **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. If you have a topic that you'd rather discuss with someone outside of the Division or want a non-DivSci perspective on, the staff in this office are a great resource for graduate students. GSAS is also a good resource if you are uncomfortable discussing a topic with any of the resources mentioned so far or if you have not made sufficient progress in those discussions. 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. GSAS and your program/department faculty or the Head of the School of Science, Engineering and Technology frequently work together to support students, resolve problems, and enact positive changes. Please visit their staff directory to explore the areas GSAS can help with.

- **The Office of Graduate 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.

- **The Graduate Student Association (GSA):** Supported by The Office of Graduate 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 School of Science, Engineering and Technology, 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 Brandeis Health Center**

- **The Prevention, Advocacy, and Resource Center (PARC)**

- **The University Ombuds**

- **The Chaplains in The Center for Spiritual Life**

7. Leave Of Absence:

The university makes several kinds of leave available to graduate students: a health leave of absence, a personal leave of absence, and pregnancy accommodation and parental relief. You can view the full policies, including the processes for initiating and returning from a leave, in the Bulletin or on the GSAS website.

Appendix A: Contact Information

- Department Chair: Jonathan Touboul (jtouboul@)
- Director of Graduate Study: Tyler Maunu (maunu@)
- Graduate Committee: Tyler Maunu (maunu@), Olivier Bernardi (On sabbatical Spring 2026) (bernardi@), Anna Miamis (aesposito@), Daniel Alvarez-Gavela (dgavela@)
- Elementary Mathematics Coordinator: Rebecca Torrey (rtorrey@)
- Math Department Administrator: Martha Lagace (marthalagace@)
- Academic Administrator: Anna Miamis (aesposito@) / (scigradoffice@)
- Grad Student Representatives: Neha Goregaokar (ngoregaokar@), Josh Perlmutter (jperlmutter@), and Alan Hou (hou@).

Important Offices:

- Math Department: Goldsmith 218, 781-736-3050. Email: mathdepartment@
- School of Science, Engineering and Technology Graduate Affairs Office: Ros-Kos Connector Room 3-RK02, 781-736-2311 (Anna)/ 781-736-2352 (main line), scigradoffice@brandeis.edu
- Graduate School: Bernstein Marcus Administration Building (in the basement), 781-736-3410, gradschool@brandeis.edu. Your primary contact there will be: Rebecca "Becky" Prigge, Assistant Dean of Graduate Student Affairs (rebeccaprigge@brandeis.edu). For questions related to financial aid please email:gsasfinaid@brandeis.edu
- Registrar: Kutz 121, 781-736-2010, registrar@brandeis.edu
- ISSO: Kutz 215, 781-736-3480, isso@brandeis.edu
- GSAS's Center for Career and Professional Development: Your primary contact there will be Associate Director Marika McCann (marika@brandeis.edu)