

**DEPARTMENT OF MATHEMATICS**  
**GRADUATE HANDBOOK<sup>1</sup>**  
2023-24

<sup>1</sup>The current version of the graduate handbook is available at <https://www.math.fsu.edu/~mhurdal/StudentResources/Graduate/index.math>

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# 1 ADMINISTRATION

- Chair, Washington Mio (mio@math.fsu.edu)
- Associate Chair for Graduate Studies (*the Graduate Chair*), Giray Ökten (gokten@fsu.edu). Oversees advising, admissions, and financial aid for graduate students.
- Associate Chair for Undergraduate Studies, Alec Kercheval (kercheval@math.fsu.edu)
- Associate Chair for Academic Affairs, Monica Hurdal (mhurdal@math.fsu.edu)
- Area Directors
  - Samuel Ballas, Director of Pure Mathematics (ballas@math.fsu.edu)
  - Ziad Musslimani, Director of Applied & Computational Mathematics (musliman@math.fsu.edu)
  - Lingjiong Zhu, Director of Financial Mathematics (zhu@math.fsu.edu)
  - Richard Bertram, Director of Biomathematics (bertram@math.fsu.edu)
  - Tom Needham, Director of Data Science (tneedham@fsu.edu)
- Coordinator of Graduate Teaching Assistants, Penelope Kirby (kirby@math.fsu.edu)
- Advisors
  - Elizabeth Scott, Graduate Academic Program Specialist (*the Graduate Advisor*; emscott2@fsu.edu)  
Helps graduate students with advising, registration, candidacy requirements, dissertation requirements, and graduation.
  - Lisa MacKay-Ring, Undergraduate Academic Program Specialist (*the Undergraduate Advisor*; advisor@math.fsu.edu).
  - Isabella Tommasone, Advising First Advisor advisor@math.fsu.edu).

# 2 THE GRADUATE PROGRAMS

Department of Mathematics has five graduate programs: Pure Mathematics (<https://www.math.fsu.edu/puremath/>), Applied & Computational Mathematics (<https://www.math.fsu.edu/acmath/>), Biomathematics (<https://www.math.fsu.edu/biomath/>), Financial

Mathematics (<https://www.math.fsu.edu/finmath/>), and Data Science (<https://www.math.fsu.edu/datascience/>).

Each program has its own admissions committee, required and elective courses, and qualifier requirements. Please visit the program webpages for more information.

### **3 REGISTRATION AND THE GRIDS**

Every semester, there will be a certain time period when students must register for their classes. A fine is imposed by the university to students who miss the deadline to register for classes.

The graduate advisor will send a registration memo to students every semester before the registration window opens. Students should consult their director or their major professor, as well as the registration memo, before registering for classes.

In addition, all funded students must complete the GRIDS every semester. This is a departmental online form where we keep track of all the courses and seminars the students are taking, and their schedules. We use GRIDS to check the registration of funded students, and to schedule the teaching duties for over 90 teaching assistants (TA) who are responsible for students in over 150 sections of our courses. More details on GRIDS will be given by the Coordinator of Graduate Teaching Assistants.

### **4 GRADUATE STUDENT COUNCIL**

The Mathematics Graduate Student Council is a group of eight graduate students who serve as:

- A liaison between the graduate students and the administration, to foster communication
- A formal resource for faculty/staff to find out about issues important to the graduate students
- A resource for helping to acclimate the new class of graduate students into the life of the department
- A resource for new graduate students for navigating some of the technical graduate school requirements

The GSC website is, <https://fsugsc2020.wixsite.com/fsumathgsc>

## 5 QUALIFIERS

PhD students must pass qualifier exams required by their program. Detailed information on qualifiers, exam topics, sample exams, and general guidelines can be found at <https://www.math.fsu.edu/qualifiers/>.

Two important rules are:

1. There is a cap set at two attempts: a qualifier in a given subject will not be given again to a student who has failed it twice. (The cap does not include the qualifiers taken by new students in August of their first year, which is known as the “free qualifier policy”.)
2. Teaching assistants (TA) must pass their area qualifiers no later than the beginning of the fourth semester of graduate study.

## 6 TIMELY PROGRESS RULES FOR FUNDED STUDENTS

Milestones to be met by students funded by the department are:

- **Tuition Waiver Awardees:** Students who receive tuition waivers must have at least 3.0 cumulative GPA each semester. If a student fails the GPA requirement, and if it is possible to raise the GPA to the required level the following semester, then a one-time exception may be granted by the Associate Chair for Graduate Studies to allow the student an additional semester to satisfy the requirement.
- **TAs:** Students who are funded by these awards should meet certain milestones in order to have continued funding. Different areas have slight variations in the timing of these milestones and you must consult your director about specific expectations in your area. Students who start receiving funding from the department after their first year are still subject to the same timeline explained below. The general guidelines you must satisfy in order to have continued funding are:
  - The area qualifiers are completed no later than the beginning of the fourth semester of graduate study. There is no additional grace period to complete the qualifiers.
  - The doctoral candidacy exam is successfully completed in the third year, Fall or Spring semesters. A student gets only two chances to pass the doctoral candidacy exam. If the exam is not passed during the Fall or Spring semesters of the third year,

then the Chair may grant an extension to the following Summer term. Funding during the Summer term is not guaranteed, and will not be more than at 0.25 FTE level.

- Note that the University implemented a new candidacy exam policy in February 2021, as follows: If a student fails the preliminary examination before being admitted to candidacy, a re-examination may be offered by the student's supervisory committee or other relevant decision making body within each department or unit, per that department or unit's doctoral student handbook. The Academic Dean's office should be notified of the outcome of any preliminary exam attempt. Students can take the preliminary examination for admission to candidacy only two times. A second failure on the preliminary exam makes the student ineligible to continue in the degree program. The second attempt at the preliminary exam shall occur no sooner than six full class weeks after the results of the first attempt are shared with the student. For the purpose of this policy, a full class week is defined as a week with five days during which classes are held at FSU. Students must be registered separately for their first and second attempt, if necessary within the same semester, and must receive either a Pass or a Fail grade for each attempt. An exception request regarding the timing of the re-examination can be submitted for consideration to the Academic Dean's Office by either the student or the supervisory committee. Students who allege that academic regulations and/or procedures were improperly applied for the re-examination of their preliminary exam may have their grievances addressed through the general academic appeals process. The full preliminary exam policy as listed here must be added to all doctoral student handbooks.
- The dissertation is defended during the fifth year. In recent years we have been able to offer TA support during the sixth year, Fall and Spring semesters only. However, year six funding is not automatic and subject to the approval of major professor, supervisory committee, and the Chair.
- Funded students must have at least 3.000 cumulative GPA each semester. If a student fails the GPA requirement, and if it is possible to raise the GPA to the required level the following semester, then a one-time exception may be granted by the Associate Chair for Graduate Studies to allow the student an additional semester to satisfy the requirement.

## 7 SCHOLARLY ENGAGEMENT REQUIREMENT

PhD students must satisfy the Scholarly Engagement requirement of FSU. To do so, PhD students must demonstrate active involvement in the scholarly community through interaction with faculty and peers. In the Mathematics department this requirement is satisfied by registering and participating in appropriate research seminars, as well as in the mathematics colloquium for a minimum of two semesters.

## 8 SEMINAR AND COLLOQUIUM REQUIREMENTS

As referenced above, each PhD student must register for the mathematics department colloquium a minimum of two semesters. Colloquium is held each Fall and Spring. Students may register pre-Candidacy and/or while Candidates.

While consistent seminar participation is encouraged for all, seminar graduation requirements vary according to Area.

**ACM:** After earning Candidacy, a PhD student must register for seminars in at least three different semesters.

**Biomath:** The student must enroll in a seminar each Fall and Spring semester, and after the first year, at least one of these should be a specialized biomathematics seminar.

**Financial Math:** Starting in the third year, PhD students must attend MAP6939 Research Seminar in Financial Mathematics each semester.

**Pure:** Regular seminar participation is required. Seminar enrollment is monitored by the Area Director.

## 9 YEARLY STUDENT EVALUATIONS

The Graduate School mandates that departments evaluate their graduate students annually. The Mathematics department performs these annual reviews in October and November, except in the case of first year students. New students are evaluated near the end of their first year, in March or April. The Graduate Advisor will supply students and faculty with the requisite form, the "Annual Progress Report."

## 10 TEACHING ASSISTANT TRAINING PROGRAM

All graduate teaching assistants go through a teacher-training program supervised by the Coordinator of Graduate Teaching Assistants. The first assignment of the new TAs is the job of Proctor in Computer Assisted Instruction (CAI) classrooms. Gradually, as TAs progress in the training program, assignments with higher responsibilities will be made. For more details see <https://www.math.fsu.edu/graduate-general-info/TAttraining.math>.

TAs must go over the Teaching Information Guide for Graduate Students (GIG) which describes the general requirements and obligations of Graduate Teaching Assistants (<https://www.math.fsu.edu/~mhurdal/StudentResources/Graduate/index.math>).

## 11 TRAVEL SUPPORT POLICY

Subject to availability of funds, the department offers financial support to graduate students who are traveling to conferences or workshops to present a talk, poster, or to attend. To be eligible, the student should also apply for a COGS (<http://sga.fsu.edu/cogs-funding.shtml>) travel grant. Also, check if the conference you plan to attend provides any financial support. All of these funds are allocated on a first come first served basis.

AMS, SIAM, and SMB have travel grants for graduate students. Please check their web pages for more information: <http://www.ams.org/programs/travel-grants/travel-grants>, <https://www.siam.org/Conferences/Travel-Support/SIAM-Student-Travel-Awards>, <https://www.smb.org/travel-grants>.

- **ATTENDANCE:** There are different rules for pre-candidates and candidates. A doctoral candidate can receive funding to attend a conference in his/her research area. A doctoral pre-candidate can receive funding to attend a meeting with a training component, such as conferences where there are lectures for graduate students. These type of grants are limited to once an academic year.
- **POSTERS:** The department provides some support to candidates who are presenting posters at conferences. These type of grants are limited to once an academic year.
- **RESEARCH TALK:** The department provides some support to candidates giving a research talk at a conference. These type of grants are limited to once an academic year.
- **JOB TALK:** There is a one-time department travel grant available to a doctoral candidate during his/her graduate studies. This is intended to support the student's main job talk.



It will likely happen in year 4 or 5 of the student's graduate studies. Students should discuss with their major professor what the most appropriate conference will be for their main job talk.

- **CLARA KIBLER DAVIS SCHOLARSHIPS:** Female graduate students are eligible to receive a Clara Kibler Davis Scholarship to support their travel. Your travel support letter will explain the conditions if you receive this scholarship.

Applications for these travel grants will be made to the Associate Chair for Graduate Studies. Please note that this travel support policy is subject to department budget constraints. Students seeking a second travel award during an academic year will have lower priority. **How to apply:** Email the Associate Chair for Graduate Studies with the following information:

1. The name of the conference, the dates, the title of your talk or poster (if you are giving one), the name of your major professor.
2. In a short paragraph explain how the conference will benefit your research.
3. Ask your major professor if you are a candidate, or your area director if you are a pre-candidate, to send the Associate Chair for Graduate Studies an email supporting your travel.

Students must check with Ms. Gina Fort before they make their travel plans and make sure they provide the necessary paperwork to receive the grants.

## 12 CONTINUOUS ENROLLMENT AND TAKING SUMMER OFF

A student who is not a doctoral candidate is free to take the summer semester off. However, you must be careful not to jeopardize your enrollment: "Continuous enrollment at Florida State University is defined as enrollment without an interruption of two or more consecutive semesters (including summer term). Credits earned at other institutions during any semester while not registered at Florida State University will not constitute continuous enrollment at the University. Graduate, law, and medical students who are not enrolled at the University for two or more consecutive semesters (or consecutive semester and summer term), and who are not on approved leave of absence, must apply for readmission before resuming their studies." [https://registrar.fsu.edu/bulletin/graduate/information/academic\\_regulations/](https://registrar.fsu.edu/bulletin/graduate/information/academic_regulations/) Furthermore, if you are a TA or RA in the summer, you must register as a full time student.

A doctoral candidate, on the other hand, is required by the university to take at least 2 dissertation hours during summer. The only exception to this rule is the following: If the student will not be using department or university resources, which includes electronic library resources, email, as well as interacting with the student's major professor, then the student can take the summer off. To pursue this option and take the summer off, the student should get an approval from the major professor and the Graduate Chair.

The following university rule on dissertation enrollment is taken from the bulletin: [https://registrar.fsu.edu/bulletin/graduate/information/academic\\_regulations/](https://registrar.fsu.edu/bulletin/graduate/information/academic_regulations/)

"After completing the required coursework, passing the Preliminary Examination, submitting an Admission to Candidacy to the Office of the Registrar, and continuing to use campus facilities and/or receiving faculty supervision, but not yet having been cleared by the Manuscript Clearance Office, a full-time student shall register for a minimum of two credit hours of dissertation per semester, including Summer term, plus additional credit hours adding up to the required full-time load, until completion of the degree. A student also must be enrolled in a minimum of two hours of dissertation in the semester of graduation as part of any full-time load or underload."

## **13 INTERNSHIPS**

Graduate students are strongly encouraged to explore summer internship opportunities. For students planning for employment in the industry, a summer internship will play a crucial role in securing a good job after graduation. For students interested in a research position after graduation, an internship at a national lab, or in the industry, could provide invaluable experience on the application of mathematics.

Talk to your director or the Graduate Chair to learn more about internships. You can do an internship and earn course credit for it, if you wish. International students need authorization before they can work as an intern.

## **14 GRADUATE ASSISTANTS AND OUTSIDE EMPLOYMENT**

Funded students (TAs and RAs) may take on additional employment, such as tutoring, for example. However, funded students are encouraged to report all outside employment to the Associate Chair for Graduate Studies to ensure there is no conflict of interest.