

MISSISSIPPI STATE UNIVERSITY DEPARTMENT OF MATHEMATICS AND STATISTICS

Graduate Programs Information Booklet

(For Internal Use Only)

Department of Mathematics and Statistics Mississippi State University

Last updated: September 4, 2024

This handbook is for graduate students and those considering graduate studies in the Department of Mathematics and Statistics at Mississippi State University. It is intended to supplement, not to replace, the Graduate Studies Bulletin of Mississippi State University.

Department of Mathematics and Statistics

• Directory

Head of the Department: Dr. Mohsen Razzaghi Associate Director: Dr. Mohammad Sepehrifar Graduate Coordinator: Dr. Seongjai Kim Undergraduate Academic Coordinator: Dr. Matt McBride

• Address

410 Allen Hall 175 President's Circle Mail Stop: 9715 Mississippi State, MS 39762, USA https://www.math.msstate.edu/

• Contact

Email: office@math.msstate.edu Call: (662) 325-2323

> Dr. Seongjai Kim Graduate Coordinator Professor of Mathematics 459 Allen Hall skim@math.msstate.edu

September 4, 2024

Contents

Ti	itle	ii
D	epartment of Mathematics and Statistics	iii
Ta	able of Contents	vi
1	General Information	1
	1.1. Facilities	1
	1.2. Financial Assistance	2
	1.3. The Graduate Coordinating Committee	3
	1.4. Time Limit Regulation for Degree Completion	3
	1.5. Graduate Teaching Assistantship (GTA) Duration	3
2	Graduate Programs and Admissions	5
	2.1. Admission Requirements	5
	2.2. Accelerated Program – "4+1" Program: Thrive in 5-years	6
	2.3. Dual Program – A short path from Master's program to Ph.D. program	6
	2.4. Direct Admission to Ph.D. Program	7
	2.5. Minor in Mathematics or Statistics (M.S.)	7
	2.6. Minor in Mathematics or Statistics (Ph.D.)	8
3	Master's Programs in Mathematics and Statistics	9
	3.1. Master's Committee	9
	3.2. Common Requirements for Master's Degree	10
	3.3. Specific Degree Requirements	11
4	The Ph.D. in Mathematical Sciences Program	13
	4.1. Breadth Requirements for the Ph.D.	13
	4.2. Doctoral Committee	14
	4.3. Examination Procedures	14
	4.3.1. Qualifying Examinations	14
	4.3.2. The Dissertation	16
	4.3.3. Preliminary Examination	16

	4.3.4. Final Examination	17
5	Policies and Academic Performance	19
	5.1. General Guidelines	19
	5.2. Unsatisfactory Performance	19
	5.3. Dismissal Policies	20
	5.4. Academic Probation	21
In	ıdex	23

Index

CHAPTER 1

General Information

The Department of Mathematics and Statistics at Mississippi State University is housed in the College of Arts and Sciences. It offers programs leading to

- Master of Science (M.S.) in Mathematics
- Master of Science (M.S.) in Statistics
- Doctor of Philosophy (Ph.D.) in Mathematical Sciences

These programs are flexible and permit specialization in many areas of mathematics and statistics.

Mississippi State University is a *Land-Grant Institution* with a Carnegie classification of *Doctoral/research university-extensive* and an enrollment of over 21,600, of which approximately 3,000 are graduate students. Founded in 1878 as "The Agricultural and Mechanical College of the State of Mississippi," the University has since diversified to become a comprehensive research institution offering graduate and undergraduate degrees in eight colleges and professional schools. Mississippi State University consistently lists the 'top 100' universities in the United States in obtaining research funds from external sources.

The University campus is adjacent to Starkville, Mississippi, a city of approximately 23,387 in the state's northeastern part. The campus area offers excellent opportunities for fishing, hunting, hiking, and other outdoor activities.

Contents of Chapter 1

1.1.	Facilities	1
1.2.	Financial Assistance	2
1.3.	The Graduate Coordinating Committee	3
1.4.	Time Limit Regulation for Degree Completion	3
1.5.	Graduate Teaching Assistantship (GTA) Duration	3

1.1. Facilities

The Department of Mathematics and Statistics is located on the fourth floor of Allen Hall, a six-story administration-classroom building in the central part of the MSU campus. The Department's computing facilities are provided through the campus Unix and Novell networks, accessed locally using both X terminals and P.C.s. Students and faculty have access to Mathematica, Maple, MATLAB, SAS, S-Plus or R, LaTeX, and numerous other packages such as word processors and spreadsheets. Mitchell Memorial Library, located near Allen Hall, has extensive holdings in the mathematical sciences and maintains a subscription list of more than 150 mathematical and statistical journals.

1.2. Financial Assistance

On a competitive basis, **financial assistance** is available to qualified admitted applicants in the form of *Graduate Teaching Assistantships* (**GTA**), currently at up to \$20,200 for Ph.D. students and up to \$17,400 for Master's Degree students per academic year with a possibility of summer support included. In addition, all GTAs and *Graduate Research Assistantships* (**GRA**) carry a tuition waiver of 100% of the total tuition.

- *International Students*. A minimum TOEFL score of 600 Paper-Based Test (250 CBT or 100 iBT) or a minimum IELTS score of 7.5 is normally recommended for all international students seeking support in the form of GTA.
- Some exceptions can be approved by the *Graduate Coordinating Committee* (GCC) and the Head of the Department. In this case, a committee consisting of the Department Head, the Graduate Coordinator, and a member of the GCC will interview the candidate.

Duties of the GTA may consist of teaching two courses (six semester hours) per semester, assisting in large mathematics and statistics courses, grading, or assisting in the Math Domain, the departmental computer laboratory, or the Learning Center.

GTA workshop. All new teaching assistants must attend a university-wide workshop for graduate teaching assistant certification and an orientation course in August prior to the beginning of the Fall Semester.

- No student may assume Graduate Teaching responsibilities without satisfactorily completing this workshop and orientation course.
- All graduate students receiving a teaching assistantship should receive further information about the workshop and orientation course by early August from Graduate School.
- Continuation of financial support is contingent on the student making satisfactory progress in his/her graduate program.

1.3. The Graduate Coordinating Committee

At the beginning of the Fall semester each year, the Head of the Department of Mathematics and Statistics will appoint a departmental *Graduate Coordinating Committee* (GCC). The committee will consist of at least four graduate faculty members of the Department, in addition to the Department's Graduate Coordinator, who serves as its chairperson. Committee responsibilities will include the following:

- Approving the major professor and graduate committee;
- Approving programs of study;
- Approving the scheduling of all oral/written examinations;
- Assigning a member of the Graduate Coordinating Committee or another graduate faculty, who is not a member of the student's graduate committee, to be present at each oral examination;
- Overseeing, coordinating, and approving all written examinations, including comprehensive examinations, oral examinations, preliminary examinations, and defense examinations;
- Determining pass or fail on comprehensive examinations by a majority vote of the GCC members;

1.4. Time Limit Regulation for Degree Completion

Admitted student to a graduate program in the Department of Mathematics and Statistics as "Regular Admission" who chooses to abandon the coursework/GTA responsibilities without proper justification must fulfill the program of study requirements within the time limit for degree completion:

- For completing a Ph.D. program, the time limit is up to 5 years since admission; with some exceptions approved by the GCC and the Department Head.
- For completing a Master's degree, the time limit is up to 2 years since admission; with some exceptions approved by the GCC and the Department Head.

Note: A student admitted to a graduate program in the Department of Mathematics and Statistics as "Regular Admission" who chooses to abandon the coursework/GTA responsibilities without proper justification may be subject to dismissal.

1.5. Graduate Teaching Assistantship (GTA) Duration

To allocate the GTA's budget more efficiently and to be able to support more Ph.D. and Master's students, the **GTA Duration Rule** applies to all graduate students admitted as *Regular Admission*, and is defined as follows:

Time Limit

- 1. The duration of possessing a GTA position for a Ph.D. student shall be up to five academic years, renewable one semester at a time after the fourth year upon the recommendation of the GCC and Head's approval.
- 2. The duration of possessing a GTA position for a Master's degree shall be up to two academic years, renewable one semester at a time after the second year upon the recommendation of the GCC and Head's approval.

Apply for an Extension

- 1. A graduate student with a GTA position may submit a request for a one-semester extension of possessing GTA, under well-justified, extenuating circumstances, and the advisor's approval.
- 2. To apply for a GTA extension, a graduate student shall submit the following documents to the GCC before passing the time limit.
 - (a) A signed **Request for Extension of Time**: Request_for_Extension_of_Time.pdf
 - (b) The letter of support from the Chair of the dissertation/thesis committee, which states a justification for the request and the specific steps necessary for the completion of the dissertation/thesis within the one-semester extension.
- 3. In a rare circumstance, the graduate student may request an extension for the second time.
- 4. The request must be approved by the GCC and the Head of the Department.

Note:

- A Request for Extension is considered for one academic semester past the time limit.
- In case a student needs more than five years of financial support, the Head of the Department will make the decision.
- The **GTA Duration Rule** is an internal rule and subject to change;
- The Graduate Coordinator will notify the newly admitted students about the GTA Duration Rule on an advisory day.
- The termination of GTA status does not mean the student cannot complete the program. It means they will not have GTA status.
- The Chair of the Ph.D. committee shall submit the progress report on the status of the graduate student to the GCC by the end of the fourth year.

Various **E-forms** can be found from https://www.grad.msstate.edu/students/forms

CHAPTER 2

Graduate Programs and Admissions

The Department of Mathematics and Statistics at MSU offers programs for Master of Science (M.S.) in Mathematics, Master of Science (M.S.) in Statistics, and Doctor of Philosophy (Ph.D.) in Mathematical Sciences.

Contents of Chapter 2

2.1.	Admission Requirements	5
2.2.	Accelerated Program – "4+1" Program: Thrive in 5-years	6
2.3.	Dual Program – A short path from Master's program to Ph.D. program	6
2.4.	Direct Admission to Ph.D. Program	7
2.5.	Minor in Mathematics or Statistics (M.S.)	7
2.6.	Minor in Mathematics or Statistics (Ph.D.)	8

2.1. Admission Requirements

Any person admitted to the Graduate School must hold a Bachelor's degree; normally, the undergraduate degree must be awarded by an institution having regional accreditation. A prospective applicant who holds a Bachelor's Degree from an educational institution that does not have regional accreditation may request consideration from the Dean of the College of Arts and Sciences prior to making an application for admission. In either case, the graduate coordinator may prescribe specific undergraduate-level courses as prerequisites to admission. The Office of the Graduate School administers admission to graduate studies.

For **Regular Admission** to a program (either M.S. or Ph.D. degree) in the Department of Mathematics and Statistics, the following are required:

- 1. A minimum undergraduate grade point average (GPA) on the undergraduate academic work of 2.75 on a 4.00 scale with some exceptions approved by the Graduate Coordinating Committee (GCC).
- 2. International students should meet the minimum requirements on **English** Language Test Score Requirements set by the Graduate School: http://catalog.msstate.edu/graduate/admissions-information/requirements-quick-reference/.

The English requirements are exempted for students in TOEFL/IELT Exempt

Countries: http://catalog.msstate.edu/graduate/admissions-information/ admission-requirements/international-students/

- 3. Submission of three letters of recommendation.
- 4. In the GCC judgment, a student is expected to possess qualities that indicate that the applicant has the ability to do graduate work.

2.2. Accelerated Program – "4+1" Program: Thrive in 5-years

Highly qualified students with a 3.00 GPA or higher on a 4.00 scale in all undergraduate work with a 3.25 GPA or higher on a 4.00 scale in Math/Stat courses and a minimum of 60 completed hours of undergraduate work may apply for the accelerated BS/MS degree in Mathematics or Statistics.

- In addition to the admission requirements for a Master's Degree Program, the applicant should submit three recommendation letters from our current Graduate faculty in the program and have a minor in statistics.
- The Department reimburses the application fees during the first semester. For details and specifics, please contact the Graduate Coordinator.

2.3. Dual Program – A short path from Master's program to Ph.D. program

The **Dual Program** has been designed so that *a first-year master's student can apply for a Ph.D. program.* The status of a student admitted to a Ph.D. program through the Dual Program automatically changes to a Ph.D. program as their primary program. As per the GCC's recommendation, an admitted student to the Ph.D. program shall fulfill the Ph.D. program of study as their primary program.

- 1. A first-year Master's student with a minimum GPA of 3.5 may apply for fall admission to the Ph.D. program.
- 2. Three letters of recommendation are required, and the name of a potential advisor (a graduate faculty) is preferred.
- 3. The Department reimburses the application fees to the admitted through this program during the first semester of starting the primary program.
- 4. Upon admission to a Ph.D. program, the GTA's stipend rises to a Ph.D. level.
- 5. Admitted to a Ph.D. program through the Dual Program can only fulfill the Master's degree requirements after passing the candidacy examination for the Ph D. degree.

- 6. Admitted to Ph.D. program through the Dual Program who wishes to change the program status will no longer hold the GTA position, unless approved by the Head of the Department. This student shall inform the Graduate Coordinator at the earliest possible. The following action needs to be taken:
 - (a) fill up the form for "Change of Program Status"
 - (b) form a new Master's committee fill up the "Committee Request Form"
 - (c) register MA/ST 7000 with the major professor for one credit hour
 - (d) complete all requirements for the Master's degree program of study

The Master's Degree: After successfully passing the **preliminary examination**, a Ph.D. student admitted through the Dual Program in the Department of Mathematics and Statistics fulfills all requirements for a master's degree. With the approval of the Graduate Coordinator, the student can apply for the master's degree in either the non-thesis or thesis track and does not need to present his/her work. For the *thesis track*, the student must meet the requirements outlined in Section 3.2 (p.10) of the handbook.

2.4. Direct Admission to Ph.D. Program

To make our program compatible with the others in the region, a **Direct Admission to Ph.D. Program** seems to be a must! We admit strong applicants for the program by considering:

- 1. GPA of 3.5+
- 2. Strong recommendation letters
- 3. The GCC voted unanimously for their admission.
- 4. The GCC strongly recommends that the admission applicant have sufficient knowledge to start the "Ph.D. program of study" beginning of the first semester of admission with GTA/GRA recommendation.
- 5. The applicant has been graduated from a top-ranked university.

Note: Admitted to Ph.D. program through "Direct Admission" from B.Sc to Ph.D. has a one-year extension to the **Time Limit Regulation**, with some exceptions approved by the GCC and the Department Head.

2.5. Minor in Mathematics or Statistics (M.S.)

For a Master's degree with a minor in mathematics or statistics, the student must complete at least *nine graduate hours* in the program.

- All minor professors and minor programs are subject to the approval of the GCC.
- The Department of Mathematics and Statistics does not require comprehensive examinations for the minor in mathematics or statistics.
- The student must achieve at least a grade of B in each of the minor program courses.

2.6. Minor in Mathematics or Statistics (Ph.D.)

For a Ph.D. degree with a minor in mathematics or statistics, the student must complete at least *12 graduate hours* in the minor program **at the 8000 levels or above**.

- All minor professors and minor programs are subject to the approval of the GCC.
- The Department of Mathematics and Statistics does not require comprehensive examinations for the minor in mathematics or statistics.
- The student must achieve at least a grade of B in each of the courses in the minor program.

Chapter $\mathbf{3}$

Master's Programs in Mathematics and Statistics

The Department of Mathematics and Statistics offers programs that lead to the Master of Science (M.S.) degree in Mathematics or Statistics.

- In both of these programs, thesis and non-thesis options are available.
- These programs give students excellent preparation for further study toward the doctorate, employment in industry or government, teaching at the high school or community college levels, or becoming an instructor in a major university.
- Some opportunities exist for students to work on applied research projects through faculty members who have grants or contracts.

Contents of Chapter 3

3.1.	Master's Committee		9
3.2.	Common Requirements for Master's Degree	•••	10
3.3.	Specific Degree Requirements		11

3.1. Master's Committee

At **the beginning of the second year**, each student in a Master's program will select a major professor from the mathematics and statistics graduate faculty. Together with the student, the major professor will select a committee consisting of the major professor as chairperson and at least two graduate faculty members from the relevant area (mathematics or statistics).

- Depending upon the student's program's nature, this committee may have members from outside the Department of Mathematics and Statistics.
- If the student declares a minor, then a graduate faculty member from the student's minor area of study will be a minor member of this committee.
- The Master's committee will approve the student's total program. Each student will either write a thesis or project, and his/her committee will determine the topic in each case.
- It will be the student's committee's responsibility to ensure that the thesis or project is well written and that its mathematical or statistical content is appropriate.

• The student will be required to present and defend their thesis or project to their committee and other interested parties.

3.2. Common Requirements for Master's Degree

For a Master's degree in Mathematics or Statistics, the student needs to earn at least **33 hours of graduate credits**, within 3 years.

Master's Degree with Thesis Option

- 1. Earn 27 semester hours of graduate credits in the program plus six hours MA/ST-8000 earned as thesis credits.
 - A minimum of 12 coursework credit hours, exclusive of thesis/research credits, must be at the 8000 level or higher.
 - Enrollment in LIB 9010 during the final semester is mandatory to meet the Graduate School requirements for graduation.
- 2. Present and defend the thesis with an oral examination component administered by the student's Master's committee.
 - This oral examination is open to the general members of the faculty and students.
 - The majority vote of the student's Master's committee will determine pass or fail.

Master's Degree with Non-thesis Option

- 1. Earn 30 semester hours of graduate credits in the program plus three hours DIS 7000/ MA/ST-8000 earned as project credits on a mathematical/statistical topic.
 - A minimum of 15 coursework credit hours must be at the 8000 level or higher.
- 2. Present the project to his/her committee, and the presentation is open to the general members of the faculty and students.
 - During the presentation, the committee and the general audience may ask questions.
 - The majority vote of the committee determines the pass or fail.

Note:

- A maximum of 6 credit hours of Directed Individual Study (DIS) coursework can be taken toward the degree. DIS courses are designated as 7000-level credit hours and may be used to meet the 8000-level course requirement.
- A grade of S for satisfactory or U for unsatisfactory is given for thesis/research credit. A student cannot graduate with a U grade in the final semester, and thesis research hours where a grade of U is earned cannot be used to meet the 6-hour credit requirement for Thesis-option.
- DIS MA/ST 7000 is reserved only for Math/Stat graduate students. With Head's approval, we can open a section for non-majoring in Math/Stat.

3.3. Specific Degree Requirements

Master's degree in Mathematics

Students need to earn credits from the Mathematics Core Courses:

- 1. MA 6153 Matrices and Linear Algebra
- 2. MA 6753 Applied Complex Variables
- 3. MA 6933 Mathematical Analysis I
- In addition to the three courses above, the student should take one of the courses:
- 4. MA 6163 (Group Theory) or MA 6943 (Mathematical Analysis II)

and one of the courses:

5. MA 6313 (Numerical Analysis I) or MA/ST 6543 (Introduction to Mathematical Statistics I)

Master's degree in Statistics

Students need to earn credits from the **Statistics Core Courses**:

- 1. ST 6543 Introduction to Mathematical Statistics 1 $\,$
- 2. ST 6573 Introduction to Mathematical Statistics II
- 3. ST 8533 Applied Probability
- 4. ST 8603 Applied Statistics
- 5. ST 8613 Linear Models I

CHAPTER 4

The Ph.D. in Mathematical Sciences Program

The Ph.D. in Mathematical Sciences program is an interdisciplinary program designed to ensure that the student acquires knowledge in a broad spectrum of the mathematical sciences and expertise in a chosen field of concentration, understands how it relates to other areas and is able to apply this knowledge to solve real-world problems. Students in the Ph.D. program are provided opportunities to gain consulting experience through the Center for Statistical and Mathematical Services in the department and opportunities to participate in research projects through other facilities on campus, such as the Engineering Research Center for Computational Field Simulation. As a result, the Ph.D. program prepares students to work in industry, government, or academia.

Contents of Chapter 4

4.1.	Breadth Requirements for the Ph.D	3
4.2.	Doctoral Committee	4
4.3.	Examination Procedures	4
	4.3.1. Qualifying Examinations	4
	4.3.2. The Dissertation	6
	4.3.3. Preliminary Examination	6
	4.3.4. Final Examination	7

4.1. Breadth Requirements for the Ph.D.

In keeping with the emphasis in the doctoral program that each student acquires breadth in the mathematical sciences, each student in the program will demonstrate a satisfactory grasp of each of the areas listed below.

- 1. A Programming Language;
- 2. Matrices/Linear Algebra;
- 3. Probability/Statistics;
- 4. Advanced Calculus;
- 5. Computational Mathematics/Statistics.

The GCC members will determine a student's satisfactory grasp of the areas listed above.

Note: The student should earn at least 53 semester hours of graduate credits in the program. Required courses include the Mathematics/Statistics **Core Courses** for Master's Degree, described in Section 3.3, p.11.

4.2. Doctoral Committee

Each student in the Ph.D. program is assigned an *academic advisor* at the beginning of the program. The academic advisor guides the student through the program until the student decides on a major professor to supervise his/her Ph.D. project.

- Students are encouraged to choose their major professors early in their programs of study, nonetheless, students must choose the major professors, latest, by the end of the second year of their program.
- The student and the major professor then select the other members of the Doctoral Committee, consisting of the *major professor and four graduate faculty members*, with at least three from the Department of Mathematics and Statistics.
- The Doctoral Committee so formed needs the GCC's approval.

The student and the Doctoral Committee select the courses for the student's program of study with the GCC's approval. The Doctoral Committee also monitors the student's progress.

4.3. Examination Procedures

4.3.1. Qualifying Examinations

In order to ensure that the skills and basic knowledge have been acquired to carry out the research necessary for the dissertation, the student must demonstrate competence in **three different areas**, as follows.

Ph.D. with a Mathematics Concentration

The student chooses **three courses**, *at least one from* A–C and *at least one from* D–G, from the list below:

- A. Real Analysis: MA 8633 Real Analysis I
- B. Functional Analysis: MA 8663 Functional Analysis I
- C. Complex Analysis: MA 8713 Complex Analysis I
- D. Applied Mathematics: MA 8203 Foundations of Applied Mathematics I
- E. Ordinary Differential Equations: MA 8313 Ordinary Differential Equations I
- F. Partial Differential Equations: MA 8333 Partial Differential Equations I
- G. Computational Mathematics: MA 8443 Numerical Solutions of Partial Differential Equations I

Ph.D. with a Statistics Concentration

The student chooses **two sequences**, *one from A*–*B and one from C*–*D*, from the list below:

- A. Statistical Inference: ST 6573 Math Stat II and ST 8733 Advanced Statistical Inference I
- B. Applied Probability: ST 8533 Applied Probability and ST 8553 Advanced Probability Theory.
- C. Linear Models: ST 8613 Linear Models I and ST 8413 Multivariate Statistical Methods
- D. Design of Experiments: ST 8603 Applied Statistics and ST 8853 Advanced Design of Experiments I

For a Statistics Concentration, **the third area** shall be related to the student's concentration and the advisor's area of expertise. This graduate-level course fulfills the program of study of the student's concentration and will be related to the research area for the Ph.D. dissertation. The graduate course will be suggested by the major advisor, which requires the approval of the GCC. Passing this graduate-level course with a grade of at least B will be considered for the third area of the qualifying examinations.

Qualifying Examinations Schedule

- Written qualifying examinations are normally scheduled twice a year, once in **September** and once in **February**.
- To show satisfactory progress in his/her graduate studies, a student is normally expected to complete his/her qualifying examinations by the beginning of the third academic year of Ph.D. work.
- A student is allowed to repeat an examination *only once*.

4.3.2. The Dissertation

After the qualifying examinations have been passed, the student's doctoral committee will be reconstituted to form the **dissertation committee**, which normally consists of the same committee members. In a rare case, the student and the doctoral committee's major professor will select the student's dissertation committee, subject to the departmental GCC's approval.

- The dissertation committee will consist of at least five graduate faculty members, including a major professor and at least three additional graduate faculty members from the Department of Mathematics and Statistics.
- The committee's primary responsibility will be to supervise the student's research and writing of a dissertation in the area of specialization, and its members should be chosen with this mission in mind.
- The student's major professor will enlist a person from outside the Department of Mathematics and Statistics who has expertise in the dissertation area to serve as an external examiner.
- This person will read the dissertation and submit written comments regarding its quality and significance to the student's committee.
- The external reviewer's letter will be sent to the Graduate Coordinator for their record.

4.3.3. Preliminary Examination

When the qualifying examinations have been passed, the breadth requirements have been met, and all course work on the program of study has been completed, the student may request the **preliminary examination** to be scheduled. In the early stages of the research effort, the student will make a formal dissertation proposal to the dissertation committee. The dissertation will be an original work that makes a significant contribution to the student's area of specialization. This examination will be an examination in the allied areas as well as an in-depth examination in the area of specialization. It will be administered by the student's doctoral committee and must contain an oral component. The majority vote of the dissertation committee will determine pass or fail. The oral component of the examination is open to the general members of the faculty and students.

Admission to Candidacy: A Ph.D. student who has passed the preliminary examination successfully is considered to have passed the Admission to Candidacy.

4.3.4. Final Examination

Once all other examinations and the dissertation have been completed, the student's committee will schedule the student's **final examination**. This examination will consist of an oral defense of the dissertation and will be open to the public. After consultation with the Graduate Coordinator, the major professor will publicize the time and place that the examination will be held. This announcement should be made at least one week prior to the scheduled date of the examination. The major advisor will notify the GCC on meeting the requirement(s) and provide a copy of the external reviewer's letter of support at least one week before the final examination. A pass or fail on this examination will be determined by a majority vote of the student's committee. In making its decision, the committee will give due consideration to the external examiner's dissertation assessment.

Note:

- To set the final examination, from work completed during the Ph.D. studies, students are expected to prepare at least one manuscript suitable for submission to peer-reviewed journals. This ready-to-submit manuscript shall be acceptable to the major professor.
- By the GCC's recommendation and Head's approval, a Ph.D. candidate will be rewarded for each accepted paper in a qualified refereed journal related to the Ph.D. dissertation's research area prior to his/her graduation.

CHAPTER 5

Policies and Academic Performance

Contents of Chapter 5

5.1.	General Guidelines	.9
5.2.	Unsatisfactory Performance	.9
5.3.	Dismissal Policies	20
5.4.	Academic Probation	21

5.1. General Guidelines

- 1. Each graduate student is required to file a **Committee Request Form**, with the Graduate Coordinator in the first semester of enrollment.
 - An approved Committee Request Form is due in the Office of the Graduate School in the student's second semester of enrollment.
- 2. With the approval of the Graduate Coordinator and the Dean of the Graduate School, a student may repeat one course per degree. This policy applies to all courses (even those not on the program of study) taken as a graduate student related to a specific program. Repeated courses must be taken at Mississippi State University.

A specific course may be repeated only once except for those approved for repeated credit (e.g. special topics, individual studies, thesis, dissertation, etc.). Both courses will remain on the permanent transcript, and both grades will be computed in final averages. No additional program credit hours will be generated from a repeated course.

5.2. Unsatisfactory Performance

Unsatisfactory progress in a degree program may be defined as one or more of the following:

1. A student's failure to maintain a "B" average on all graduate courses in the degree program;

- 2. Failure of the Master's oral examination
- 3. Failure of a comprehensive examination
- 4. Failure of the preliminary examination.

In January, May, and August of each year, the GCC will review the academic records of students who were admitted with contingent or provisional status, are currently on probation, have earned a grade of D, F, or U during the previous semester, or have earned more than two grades below B.

5.3. Dismissal Policies

The GCC will consider making a recommendation to the Dean of the Graduate School that a student be dismissed from their degree program if any of the following conditions exist:

- 1. The student's progress in their degree program is deemed unsatisfactory;
- 2. The student is not making satisfactory progress toward satisfying any condition of their contingent admission;
- 3. The student is on academic probation and cannot meet the requirements for good academic standing within the next nine credit hours taken in the student's program of study.
- 4. The student who failed to meet the Time Limits regulation for the degree completion, with some exceptions approved by the GCC and the Department Head.

Any of the following will result in a recommendation for dismissal from a graduate degree program:

- 1. Two failures on the Master's comprehensive examination;
- 2. Two failures on the Ph.D. comprehensive examinations;
- 3. Two Failures on the preliminary examination.
- 4. Failure of a student in provisional status to achieve a 3.0 GPA on the first nine hours of regular graduate-level courses taken at Mississippi State University;
- 5. More than two grades below a "B";
- 6. A grade of D, F, or U in any course (graduate or undergraduate) taken while enrolled in a graduate program in mathematics or statistics.

The student and advisor (if different from the graduate coordinator) will be notified in writing when the first and second unsatisfactory grades are received.

5.4. Academic Probation

A student enrolled in a graduate program in the Department of Mathematics and Statistics will be placed on academic probation if the student fails to maintain a 3.0 GPA or earns a grade below a "B" on a prerequisite course. To be removed from academic probation, the student must achieve an overall GPA of 3.0 or higher on coursework taken toward the degree.

Index

4+1 program, 6

academic probation, 21 accelerated program, 6 Admission Requirements, 5 Admission to Candidacy, 17

Breadth Requirements for the Ph.D., 13

Committee Request Form, 19 Common Requirements for Master's Degree, 10 comprehensive examinations, 14 Core Courses, 14 Core Courses, Mathematics, 11 Core Courses, Statistics, 11 course repetition, 19

Department Address and Contact, iii Direct Admission to Ph.D. Program, 7 dismissal policies, 20 dissertation, 16 dissertation committee, 16 Doctoral Committee, 14 Dual Program, 6 Duties of the GTA, 2

E-forms, 4 English Language Test Score Requirements, 5 Examination Procedures, Ph.D., 14

final examination, 17 financial assistance, 2 forms, 4 four-plus-one program, 6

GCC, 3, 5

GPA, 5 GRA, 2 Graduate Coordinating Committee, 2, 3, 5 Graduate Coordinator, iii Graduate Programs, 5 Graduate Research Assistantships, 2 Graduate Teaching Assistantships, 2 GTA, 2 GTA Duration Rule, 3 GTA workshop, 2 GTA's duties, 2

master's committee, 9 Master's Program, 9 Mathematics Core Courses, 11 minor program, M.S., 7 minor program, Ph.D., 8

Non-thesis Option, 10

Policies and Academic Performance, 19 preliminary examination, 7, 16

qualifying examinations, 14 Qualifying Examinations Schedule, 16

Regular Admission, 5 Request for Extension of Time, 4

Statistics Core Courses, 11

Thesis Option, 10 thesis track, 7 Time Limit Regulation, 3, 7 TOEFL/IELT Exempt Countries, 6

Undergraduate Coordinator, iii unsatisfactory performance, 19