

MATHEMATICS (M.S.)

Degree: Master of Science

Major: Mathematics

Total Hours: 30

The Department of Mathematics offers a program of study leading to a **Master of Science degree in Mathematics**. It is designed to prepare students either for professionally oriented careers in industry or government, for further graduate work in mathematics, or for the depth and breadth necessary for a career in mathematics education.

Prospects for a student with a Master of Science in Mathematics are numerous. Opportunities exist in all areas of applied mathematics including computer science, statistics, operations research, numerical analysis, mathematical physics, administration/management science, engineering, and secondary and elementary school teaching. These represent a sample of the excellent job opportunities available for a student who earns our M.S.

The department invests considerable time advising students in the M.S. program. Once a student is admitted, the advisor will tailor the individual program to meet the new scholar's needs and/or interests. Consequently, a student with a bachelor's degree in mathematics, computer science, engineering, applied sciences, or secondary education will find appropriate opportunities in this M.S. program.

Those seeking admission to this program must satisfy the requirements as indicated below.

Admission to the Program

In order to be admitted to the Graduate Degree Program, a student must have:

- Met the general requirements as set forth in this catalog for admission to Lamar's College of Graduate Studies.
- Earned a bachelor's degree from an institution approved by a recognized accrediting agency.
- Achieved the standards of a minimum GPA of 2.5 in the last sixty hours of undergraduate work and a minimum GRE combined score of 290. Non-native English speakers must have successfully completed the IELTS.
- Successfully completed no fewer than 27 semester hours of undergraduate mathematics including courses equivalent or comparable to the following: abstract algebra, analysis, differential equations, linear algebra and statistics, 12 hours of which must be at the junior and/or senior level. Applicants who do not meet this requirement may still be admitted conditionally and be required to make up missing coursework as prescribed by the department. A GPA of 3.0 for assigned deficiency/leveling courses must be maintained and grades below "C" will not be accepted.

Final approval as to what course work is acceptable toward admission to the graduate degree program lies with the graduate advisor and the department chair.

Admission to Candidacy

In order to be admitted to candidacy a student must

- Successfully complete 12 semester hours of approved graduate work in mathematics.
- Remove all deficiencies in mathematics designated by the Graduate Advisor and the Department Chair.
- Satisfy the general Admission to Candidacy requirements as set forth in this catalog.

Completion of the Program

In addition to the required courses listed, a student must

- Take the Advanced Mathematics section of the Graduate Record Examination and have the score reported to the Graduate Advisor.
- Complete one of the two following programs:
 - For the thesis track, submit a written thesis acceptable to the student's graduate committee, and a satisfactory oral defense of the thesis before the graduate committee.
 - For the non-thesis track, successfully pass an examination over the course work prepared by the student's graduate committee.

Code	Title	Hours
Required Courses for Major		
Select three of the following:		9
MATH 5310	Real Variables	
MATH 5320	Modern Algebra	
MATH 5340	Topology	
MATH 5312	Complex Variables	
Elective Courses		
Select five MATH courses at the 5000 level		15
Other		
<i>Thesis</i>		
MATH 5390	Thesis	3
MATH 5391	Thesis ¹	3
<i>Non-Thesis</i>		
Select four MATH courses at the 5000 level		0-6
<i>Leveling or Deficiency Courses (if required)</i>		
MATH 3322	Introduction to Advanced Mathematics	
MATH 3350	Modern Algebra - Groups	
MATH 4325	Analysis I	
Total Hours		30-36

- ¹ MATH 5391 Thesis may be repeated once, if necessary