MATHEMATICS, M.A.

Program Description

The Master of Arts degree in Mathematics is offered by the Department of Mathematics. This is a two-year program designed to prepare students for positions in industry, government agencies, or business; for further graduate study at the doctoral level; and for teaching positions at the secondary or two-year college level.

Note: An area of emphasis in mathematics, Math through Algebra I, is offered by the M.A. degree programs in Elementary Education and Secondary Education. These programs, which are offered through the College of Education and Professional Development, are intended to meet the needs of public school teachers (K-12).

Area of Emphasis in Statistics

An area of emphasis in statistics is offered in the Department of Mathematics. The curriculum for the Master of Arts in Mathematics with an Area of Emphasis in Statistics prepares students with a solid background in both theoretical and applied statistics for positions in industry, government agencies, or business; for further graduate study at the doctoral level; and for teaching positions at the secondary or two-year college level. (See degree requirements that follow.)

Admission Requirements

Applicants to the Mathematics program must follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate (http://www.marshall.edu/graduate/). International applicants should also consult the Office of International Student Services and review the website www.marshall.edu/admissions/international (http://www.marshall.edu/admissions/international/).

In addition:

- Applicants must have a Grade Point Average of at least 2.5 on a scale of 4 from the bachelor's degree granting institution. International applicants should contact the Office of International Student Services to inquire about possible substitute documentation.
- Applicants may optionally report scores from the Graduate Record Examination. Applicants who choose to send scores should send them directly to the Graduate Admissions office. GRE scores are required for applications for the mathematics Graduate Assistantship; see below.

Deadlines. To ensure full consideration for admission, domestic applicants must ensure that their application materials are received by the Graduate Admissions office no later than August 1 for admission in the fall, and no later than December 1 for admission in the spring. International applicants must ensure that their application materials are received by the Graduate Admissions office no later than June 15, for admission in the fall, and no later than October 15, for admission in the spring. Applicants who apply for a Graduate Assistantship should follow the earlier dates set below in the section Timeframe for Awarding Graduate Assistantships.

Conditional Admission. The Mathematics program may admit applicants conditionally, for one term, pending receipt of required credentials. Applicants whose transcripts do not show coursework equivalent to a bachelor's degree in mathematics may be admitted conditionally and required to take additional foundational courses, which may include undergraduate courses. Applicants who are conditionally admitted are not eligible to receive a Graduate Assistantship, but become eligible when fully admitted.

Provisional Admission. The Mathematics program may admit applicants provisionally, for one term, when the undergraduate Grade Point Average does not meet the requirement for admission.

For more information on the types of admissions, please see www.marshall.edu/graduate/admissions/types-of-admission (http://www.marshall.edu/graduate/admissions/types-of-admission/).

Mathematics Graduate Assistantships and Financial Support

The department offers a limited number of Graduate Assistantships. An applicant wishing to be considered for a Graduate Assistantship must submit a separate application form to the Mathematics Department Assistant Chair for Graduate Studies. This form can be obtained from the Assistant Chair for Graduate Studies or from the Department of Mathematics website at www.marshall.edu/math/graduate (http://www.marshall.edu/math/graduate/).

For complete information on graduate assistantships and other financial support opportunities, please see the Graduate College website at www.marshall.edu/graduate (http://www.marshall.edu/graduate/).

Additional requirements for Graduate Assistant applications:

- The applicant should arrange for no more than three letters of recommendation supporting the application. Letters may be sent by email or by postal mail directly by the referees to the Assistant Chair for Graduate Studies, Department of Mathematics, One John Marshall Drive, Huntington WV 25755.
- The applicant must also submit a personal statement not more than two pages in length. This statement should describe the applicant's background, motivation for studying mathematics, future plans, and any other topics relevant to the applicant's qualifications for a Graduate Assistantship.
- Applicants for a Graduate Assistantship must also apply for admission to the Mathematics degree program and send General Record Examination scores to the Graduate Admissions office. A Graduate Assistantship application cannot be considered until the application for admission to the degree program is complete.
- A minimum Grade Point Average of at least 2.75 on a scale of 4 from the bachelor's degree granting institution is required.

Timeframe for Awarding Graduate Assistantships. Offers for Graduate Assistantships will be made beginning after May 15, for admission the following fall, and November 15, for admission the following spring. Applicants should ensure their materials are received before these dates to ensure full consideration. Applications received after these dates will be considered until all available Graduate Assistantships are filled.

Program Requirements

A Plan of Study approved by the department/program and the graduate dean must be filed in the Graduate College office before the

student registers for the 12th semester hour. For graduation, a student is required to pass at least 36 approved credit hours, of which 18 credit hours must be at the 600 level. These 18 credit hours may include Special Topics, not more than 3 credit hours of Thesis (for students taking the thesis option), but not Independent Study. Students must pass or be exempted from each of MTH 528 Advanced Calculus II, STA 546 Probability and Statistics II and MTH 552 Modern Algebra II. Students may choose either to write and defend an acceptable thesis or pass a comprehensive oral examination. Hours from MTH 589 Graduate Mathematics Seminar do not count toward graduation.

The specific coursework requirements for the program are:

- 18 credit hours of 600-level courses, including not more that 3 credit hours of Thesis but excluding Independent Study.
- 18 additional credit hours at the 500 level or higher, which will include MTH 528 Advanced Calculus II, STA 546 Probability and Statistics II, and MTH 552 Modern Algebra II unless exempted. These additional credit hours may also include an optional 6 credit hours at the 500 level or higher from another department at Marshall offering a graduate program as a minor.

Area of Emphasis in Statistics

To be awarded the M.A. in mathematics with statistics as an area of emphasis, the student must satisfy the graduation requirements specified above for the M.A. degree in the Department of Mathematics. In addition to passing or being exempted from MTH 528 Advanced Calculus II, STA 546 Probability and Statistics II, and MTH 552 Modern Algebra II, students must take and pass STA 661 Adv Math Statistics and STA 662 Appl Multivariate Stat Methods, neither of which may be taken as Independent Study. Students must take at least 12 credit hours of mathematics courses at the 500 level or higher, not including probability and statistics courses. A student may choose to write and defend an acceptable thesis in the area of probability or statistics, or pass a comprehensive oral examination. A student choosing to write a thesis must take no fewer than 15 credit hours not including Thesis and Independent Study in probability or statistics courses. A student opting for the comprehensive oral examination must take no fewer than 18 credit hours not including Independent Study in probability or statistics courses.

Comprehensive Oral Exam

With the approval of the Assistant Chair for Graduate Studies, the student will select three graduate courses at the 600 level demonstrating a depth of knowledge in those areas of mathematics. For a student pursuing an area of emphasis in statistics, at least two of the courses must be chosen from the probability and statistics courses. The student will select, with the approval of the Assistant Chair for Graduate Studies, a committee consisting of three faculty members. The chairman of the Oral Examination Committee must have the level of Graduate Faculty Status as determined by the Graduate College.