FAIRFIELD UNIVERSITY
GRADUATE PROGRAMS

MASTER OF SCIENCE IN MATHEMATICS

PROGRAM DESCRIPTION

The master’s program is open to all who wish to add an interesting and useful dimension to their previous education. It offers particular appeal to: middle and secondary school teachers; those in business and industry whose work is quantitative in nature; anyone considering teaching in community colleges; those seeking a solid preparation before pursuing a Ph.D. in mathematics or other technical field; and B.A./B.S. degree holders who wish to challenge themselves and enhance their credentials through graduate level courses without making the commitment to a Ph.D. Individuals who would like to take advanced courses in mathematics or statistics but do not plan to pursue an M.S. degree are also welcome.

COURSE OF STUDY

To earn the M.S. in Mathematics, students must complete 30 credits with a minimum GPA of 3.00. In consultation with a faculty advisor, each student will design an individualized program of study consisting of four required courses (12 credits) and 18 credits of electives, which includes a capstone project.

The latter is a written or oral project that is generally added to an existing course or an independent study. Throughout the program, state-of-the-art technology will be an integral component of the curriculum, particularly in areas related to Quantitative Methods and Statistics.

REQUIRED COURSES

• Real Analysis and Linear Algebra
• Two additional designated proof-intensive courses

ELECTIVE COURSES

• Foundations and Set Theory
• Introduction to Applied Math
• Abstract Algebra
• Complex Analysis
• Dynamical Systems
• Partial Differential Equations
• Probability
• Statistics
• Geometry
• Topology
• Numerical Analysis
• Applied Statistical Methods
• Number Theory
• Use of Technology in the Classroom
• Statistical Forecasting
• Classical Financial Mathematics
• Mathematics of Financial Derivatives
• Statistical Consulting

CAPSTONE EXPERIENCE

The capstone is an opportunity for the student to step beyond classroom learning and independently engage the material she/he has learned in the program. It is an independent project with a written or oral presentation the student plans with the guidance of a faculty mentor and the approval of the program director. It is based on the material the student learns in a specific course or courses, generally in the final semesters of the program.

TYPICAL PROGRAMS

The examples that follow illustrate three possible ways of shaping the course of study within the M.S. These are suggestions only, and each student may take any combination of the two required courses and eight electives, including two proof-intensive courses, together with a capstone, as worked out with the help of an advisor.

FOR TEACHERS AND PROSPECTIVE TEACHERS

• Geometry
• Topology
• Foundations and Set Theory
• Use of Technology in the Classroom
• Number Theory

FOR BUSINESS-ORIENTED PROFESSIONALS

• Probability
• Statistics
• Applied Statistical Methods
• Applied Math
• Dynamical Systems
• Partial Differential Equations
• Classical Financial Mathematics
• Mathematics of Financial Derivatives

FOR THOSE INTERESTED IN PURE MATHEMATICS

• Geometry
• Topology
• Abstract Algebra
• Advanced Abstract Algebra
• Numerical Analysis
• Foundations and Set Theory
• Number Theory

Fairfield University
College of Arts and Sciences
CERTIFICATE IN FINANCIAL MATHEMATICS

In addition to our Master’s Degree program, we offer a certificate program designed for mathematically trained professionals and those with a background in finance. Participants acquire additional quantitative and qualitative skills important to advancing careers in investment banking, hedge funds, and financial markets. The Certificate can be earned in the course of earning the MS degree or on its own.

PROGRAM COURSEWORK
(12 credits) may be applied to the requirements of the master’s degree in mathematics.

REQUIRED COURSES
• Classical Financial Mathematics
• Applied Mathematics I
• Applied Mathematics II
• Mathematics of Financial Derivatives

GRADUATE PROGRAM DIRECTOR
Prof. Stephen F. Sawin
Phone: 203-254-4000 ext. 2573
E-mail: ssawin@fairfield.edu

Professor Sawin serves as the faculty advisor for students in graduate mathematics programs and is the appropriate person to contact with questions, or to learn more.

For a complete faculty listing, see www.fairfield.edu/mathfaculty.

ADMISSION REQUIREMENTS

Our programs welcome students of ability with a strong undergraduate background in mathematics or a related field such as computer science, engineering, physics, finance, economics, or certain social sciences. Students who hold a bachelor’s degree in any field from a regionally accredited college or university (or the international equivalent) are encouraged to apply.

FORMAL ADMISSION PROCESS

Applications to the graduate program are accepted on a rolling basis. Applications are reviewed by the Graduate Admission Committee. Students seeking admission must complete and submit the following online:

1. A completed application. (Apply online at www.fairfield.edu/mathapp.)
2. A non-refundable $60 application fee.
3. A professional résumé.
4. Personal statement describing intent for studying in the program.
5. Official transcripts from all universities/colleges attended. (All foreign transcripts must be evaluated by an approved evaluating service. A list of approved evaluators is available at www.fairfield.edu/eval.)
6. Two recommendations, one of which must be from a current supervisor or professor, completed online.

7. All international students whose native language is not English must demonstrate proficiency in the English language by taking either TOEFL or IELTS exams. For admission to the graduate school, a TOEFL composite score of 550 for the paper test, 213 for the computer-based test, 80 on the internet-based test or an IELTS score of 6.5 is strongly recommended. Scores must be sent directly from the Educational Testing Service (TOEFL) or www.IELTS.org. Fairfield’s ETS code is 3390.

Submit transcripts and any other documents that cannot be uploaded to:

Fairfield University
Office of Graduate Admission
Kelley Center
1073 North Benson Road
Fairfield, CT 06824

MANDATORY IMMUNIZATIONS

Connecticut State law requires each full-time or matriculated student to provide proof of immunity or screening against measles, mumps, rubella, varicella (chicken pox), meningitis and tuberculosis. Certain exemptions based on age and housing status apply. Matriculating students are defined as those enrolled in a degree seeking program. More detailed information and the required downloadable forms are available online at www.fairfield.edu/immunization. Completed forms should be submitted directly to the Student Health Center. Although this is not required to complete an application, you must provide proof of immunity/screening prior to course registration. Please consult your private health care provider to obtain the necessary immunizations. Questions may be directed to the Student Health Center: 203-254-4000 ext. 2241 or e-mail health@fairfield.edu.

TUITION/FINANCIAL AID

Academic Year 2016/2017
Tuition: $725 per credit hour

A graduate education can provide countless professional and personal rewards in the future. However, the costs associated with earning a master’s degree may be challenging. Many students need to look beyond their own financial resources or the resources of their employer for assistance. There are many ways to finance a graduate education, including graduate assistantships, federal direct loan programs and our Veterans Pride Program which are discussed at www.fairfield.edu/gradfa.

OFFICE OF FINANCIAL AID

Advisors from the Office of Financial Aid are committed to helping students find the options that best suit each of their needs. We encourage all Fairfield University graduate students to contact the Financial Aid office with any questions or to make an appointment to speak with a counselor.

FINANCIAL AID CONTACT INFORMATION
Phone: 203-254-4125
Fax: 203-254-4008
E-mail: finaid@fairfield.edu

FINANCIAL AID OFFICE OPERATIONS
Days: Monday-Friday
Hours: 8:30 a.m.-4:30 p.m.
Location: Aloysius P. Kelley, S.J. Center
MORE INFORMATION

ADMISSION QUESTIONS
Questions about the application process should be directed to the Office of Graduate Admission.
Phone: 203-254-4184
Fax: 203-254-4073
E-mail: gradadmis@fairfield.edu

OFFICE OPERATIONS
Days: Monday-Friday
Hours: 8:30 a.m.-4:30 p.m.
Location: Aloysius P. Kelley, S.J. Center

COLLEGE OF ARTS AND SCIENCES WEBSITE
www.fairfield.edu/cas

MASTER'S OF SCIENCE IN MATHEMATICS WEBSITE
www.fairfield.edu/math

ONLINE CATALOG
For detailed course descriptions and other University information, please refer to our online catalog www.fairfield.edu/catalogs.