Mathematics and a Second Discipline: Finance
ASSET MANAGEMENT TRACK

This program is designed to prepare students for **ASSET MANAGEMENT**, which is a mathematically and statistically intensive field within finance. Quantitative analysts, who build models to find patterns in financial markets, are called "quants." Students may ultimately seek employment with asset management firms such as mutual funds, hedge funds, and ETF providers. In addition, there will be opportunities in quantitative research departments at major financial institutions.

Following this particular track (described below) for asset management in finance, you will be advised in both Finance and Mathematics. The Undergraduate Advisor in the Department of Finance in the E. J. Ourso College of Business acts as the advisor for students in the *Mathematics and a Second Discipline: Finance* track. His contact information is:

> Kurtay Ogunc, PhD, MBA, MApStat
> Email: financeadvisor@lsu.edu
> Office: 2904 Business Education Complex

This program is rigorous but rewarding. It contains guidance in mathematics, statistics, economics, and finance that contribute to your education and making you an attractive job candidate in asset management.

Required courses for this program track:

- ✓ MATH 1550, MATH 1552, MATH 2057, MATH 2090, and MATH 2060
- ✓ One of MATH 2020, MATH 2025, or MATH 2030
- ✓ MATH 3050, MATH 3355, MATH 4031, MATH 4058, MATH 4340, and MATH 4023 or MATH 4200
- ✓ ECON 2030 and ECON 4630
- ✓ FIN 3717, FIN 3826, FIN 4828, and FIN 4850
- ✓ EXST 2201, EXST 3201, EXST 4050

✓ Second Discipline Electives - Three courses selected from the following list: FIN 3840, FIN 4820 (new course number in 2019), FIN 4840 (new course in 2019), FIN 4910 (new course in 2019), FIN 7400

Two additional recommended electives that are included in the sample program are:
✓ EXST 4012 (Introduction to Sampling Techniques), EXST 4142 (Introduction to R and Statistical Data Mining) or MATH 4024 (Mathematical Models)
✓ ECON 4633 (Time Series Data Analysis), EXST 7151 (Bayesian Data Analysis), MATH 4025 (Optimization Theory and Applications) or MATH 4065 (Numerical Analysis)

In the sample program below, required courses for this program track are highlighted in yellow. Substitutions of these courses require approval of the track advisor, Dr. Kurtay Ogunc. Free electives are in green with recommendations. The program is 120-122 hours depending on laboratory choices.

Semester 1
MATH 1550 (5)
Approved Elective (4) - EXST 2201
ENGL 1001 English Composition (3)
General Education Course - Humanities (3)

Total Semester Hours: 15

Semester 2
MATH 1552 (4)
First Course in Foreign Language Sequence (4)
General Education Course - Social Sciences (2000-level) (3)[1] - ECON 2030
Approved Elective (4) - EXST 3201

Total Semester Hours: 15

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[1] The two general education social sciences may be the sequence ECON 2000 and ECON 2010 or ECON 2030 and any general education social science.

Semester 3
MATH 2057 (3)
MATH 3050 (5)[2]
MATH 2020, MATH 2025, or MATH 2030 (3)
General Education Course - Natural Sciences (3)
Natural Sciences Lab (0-1)

Total Semester Hours: 14-15

Semester 4
MATH 2090 (4)
Area of Concentration Course (3) - MATH 3355
Second Discipline Course (3) - FIN 3717
General Education Course - Social Sciences (3)[3]
ENGL 2000 English Composition (3)

Total Semester Hours: 16

Semester 5
Second Discipline Course (3) - FIN 3826
Approved Elective (3) - ECON 4630
Area of Concentration Course (3) MATH 4031
General Education Course - Natural Sciences (3)
Approved Elective (4) - EXST 4050

Total Semester Hours: 16

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[2] Satisfies the 2019-2020 requirement of "any math course numbered 2000 or higher" and two hours of electives. Students on older catalogs will need the approval of the Associate Chair in Mathematics to replace the obsolete second bridge course requirement.

[3] The two general education social sciences may be the sequence ECON 2000 and ECON 2010 or ECON 2030 and any general education social science.

Semester 6

Second Discipline Course (3) - FIN 4828

Second Discipline Elective (3) - FIN 3840, FIN 4820, FIN 4840, FIN 4910 or FIN 7400

General Education Course - Natural Sciences (3)

Natural Sciences Lab (2-1)

Area of Concentration Course (3) - MATH 4058

Math 2060 (1)

Total Semester Hours: 14-15

Semester 7

Second Discipline Course (3) - FIN 4850

Second Discipline Elective (3) - FIN 3840, FIN 4820, FIN 4840, FIN 4910 or FIN 7400

Approved Elective (3) - Suggested: EXST 4012, EXST 4142 or MATH 4024
MATH 4340

General Education Course - Humanities (English/honors 2000-level) (3)

Total Semester Hours: 15

Semester 8

Second Discipline Elective (3) - FIN 3840, FIN 4820, FIN 4840, FIN 4910 or FIN 7400
MATH 4023 or MATH 4200 (3)

Capstone Course (3)[4]

Approved Elective (3) - Suggested: ECON 4633, EXST 7151, MATH 4025 or MATH 4065

General Education Course - Arts (3)

Total Semester Hours: 15

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[4] Students may complete a research project approved by the undergraduate finance advisor in FIN 3900 or FIN 4840 as well as any of the capstone options given on www.math.lsu.edu/ugrad/requirements.