

# Master of Science in Quantitative Finance

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## About This Program

The Master of Science in Quantitative Finance is designed to provide a specialized, highly analytical graduate education to financial managers, financial analysts, and technical personnel.

## Competencies

1. Quantitative Skills: upon completion, students will possess a thorough command of quantitative techniques for asset valuation and financing.
2. Computational Skills: upon completion, students will possess the computational skills required to successfully model asset valuation and financing using simulated and actual data.
3. Communication Skills: upon completion, students will possess oral and written communication skills to be able to communicate effectively with both non-technical financial managers and highly mathematical quantitative theorists with equal proficiency.
4. Research Skills: upon completion, students will possess the financial and mathematical skills required to conduct independent financial research.

## Admissions Criteria

The Master of Science in Quantitative Finance (MSQF) graduate advisor reviews all applications and determines whether they qualify for unconditional admission. Applicants who do not satisfy the admission conditions are referred to the MSQF Admissions Committee for consideration.

An applicant whose native language is not English must demonstrate a sufficient level of skill in the English language to ensure success in graduate studies as defined by the Office of Graduate Admissions.

## UNCONDITIONAL ADMISSION WITHOUT COMMITTEE REVIEW

Unconditional admittance will be granted without the need for a review by the MSQF Admissions Committee to an applicant who holds a bachelor's degree with a GPA of 3.0 or above (last 60 hours), with either appropriate work experience or coursework in business or quantitative fields from an AACSB-accredited college or university, or equivalent.

Applicants without appropriate work experience or coursework in business or quantitative fields from an AACSB-accredited college or university, or equivalent, will be granted unconditional admittance without the need for a review by the MSQF Admissions Committee if they hold a bachelor's degree with a GPA of 3.2 or above (last 60 hours).

## ADMISSION WITH COMMITTEE REVIEW

Applicants who do not meet the above GPA requirement will have their application reviewed by an admissions committee. Sufficient quantitative skills will be judged based on the following factors:

- A degree or certificate in a quantitative or business field.
- Quantitative or business coursework.
- Relevant business or professional experience.
- Coding or programming certification or experience.
- Undergraduate and graduate GPA (overall, major, or last 60 hours) and program accreditation status of the applicant's degree-granting institution.
- Score on the quantitative section of the GMAT or GRE (if taken).
- Financial or real estate modeling skills, relevant work experience or internships demonstrating applied quantitative skills.

By considering the totality of the applicants circumstances, including the factors listed above, the Graduate Studies Committee for MSQF will evaluate an applicant's readiness to successfully complete the graduate program. Depending on the committee's judgment, the decision may be to grant unconditional admission, probationary admission, deferred admission, or deny admission. The committee's decision is final.

## PROBATIONARY ADMISSION

An applicant deemed deficient in the above criteria may be considered for probationary admission upon careful review of their materials. Probationary admission requires the student to maintain a 3.0 grade point average for the first two semesters of enrollment. Additionally, the student may be required to take deficiency courses.

## DEFERRED AND DENIED ADMISSION

A deferred decision may be made when an applicant's file is not sufficiently complete to make an admission decision, or when an applicant needs to improve certain criteria to enhance their competitive status for future admission consideration. For an applicant lacking sufficient evidence to indicate potential for academic success as an MSQF student, admission will likely be denied. All applicant data will be carefully reviewed before an admission denial is made. The decision to defer/deny admission is not based on any single criterion.

**Curriculum****Foundations**

FINA 5323	INVESTMENTS	3
FINA 5327	FINANCIAL DERIVATIVES	3
FINA 5350	MATHEMATICAL FINANCE	3
FINA 5351	FINANCIAL MODELING FOR INVESTMENTS	3
FINA 5352	FINANCIAL MODELING FOR CORPORATE ANALYSIS	3
FINA 5376	FINANCIAL DATA ANALYTICS	3
ECON 5336	APPLIED BUSINESS AND ECONOMICS DATA ANALYSIS I	3
INSY 5336	PYTHON PROGRAMMING	3

**Electives**

Select twelve hours of elective courses with advisor approval.	12
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<b>Total Hours</b>	<b>36</b>
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**Program Completion**

The remaining 12 hours of elective coursework are selected by the student, subject to the approval of the program advisor. Courses will be chosen from a list that includes:

1. finance elective classes (international finance, financial institutions, capital markets, real options, and capital budgeting),
2. economics (macroeconomic theory, econometrics, time series analysis),
3. mathematics (advanced calculus, real analysis, differential equations, stochastic processes, and numerical methods),
4. statistics (probability theory, mathematical statistics), and
5. computer science (programming languages, numerical methods, parallel processing, software engineering).

Students who do not have the appropriate background may have to take additional foundation coursework. Quantitative background appropriate to begin the MSQF program consists of a minimum of six credit hours of calculus and three credit hours each in linear algebra, statistics, and computer programming. Other foundation coursework would include at least three credit hours each of microeconomics and finance.

**Advising Resources**

Contact the Finance and Real Estate Department for graduate program inquiries and academic advising.

**Location:**

College of Business Building, Room 434

**Email:**

finance-realestate@uta.edu

**Phone:**

817-272-3705

**Web:**

Inquiries & Advising (<https://www.uta.edu/academics/schools-colleges/business/departments/finance-and-real-estate/>)