

# QUANTITATIVE FINANCE, MBA

This major focuses on the application of advanced quantitative and computational tools in the finance industry. It prepares students for a professional career in the quantitative modeling of financial markets. Students majoring in Quantitative Finance are ideally suited for careers in asset management firms or in financial modeling in a broad range of firms.

## Curriculum

A minimum of 19 course units is required for graduation.

Major electives taken on a pass/fail basis cannot be counted toward the Quantitative Finance major.

This major cannot be taken in conjunction with the general Finance (FNCE) major.

| Code   | Title  | Course Units |
|--|--|--------------|
| <b>Quantitative Finance Major Requirements</b>           |  |              |
| Core Requirements <sup>1</sup>                           |  |              |
| FNCE 6110  | Corporate Finance                                    |              |
| FNCE 6130  | Macroeconomics and the Global Economic Environment   |              |
| MGEC 6110  | Microeconomics for Managers: Foundations             |              |
| MGEC 6120  | Microeconomics for Managers: Advanced Applications   |              |
| Select 3-4 course units from the following: <sup>2</sup> |  | 3-4          |
| FNCE 7050  | Investment Management                                |              |
| FNCE 7170  | Financial Derivatives                                |              |
| FNCE 7190  | International Financial Markets and Cryptocurrencies |              |
| FNCE 7250  | Fixed Income Securities                              |              |
| FNCE 7370  | Data Science for Finance                             |              |
| FNCE 7390  | Behavioral Finance                                   |              |
| FNCE 7570  | Foundations of Asset Pricing                         |              |
| FNCE 8920  | Financial Engineering                                |              |
| Select up to 1 course unit of the following:             |  | 1            |
| ACCT 7470  | Financial Disclosure Analytics                       |              |
| FNCE 9210  | Introduction to Empirical Methods in Finance         |              |
| OIDD 6530  | Mathematical Modeling and its Application in Finance |              |
| STAT 5330  | Stochastic Processes                                 |              |
| STAT 7110  | Forecasting Methods for Management                   |              |
| <b>Electives</b>   |  |              |
| Select 5.5 course units of electives                     |  | 5.5          |
| <b>MBA Core Requirements</b>                             |  | <b>9.5</b>   |
| <b>Total Course Units</b>                                |  | <b>19</b>    |

<sup>1</sup> Core requirements must be completed or waived.

<sup>2</sup> A total of 4 course units of major electives must be completed.

<sup>3</sup> If FNCE 7050 is used to replace FNCE 6110 as a core requirement, it will not count towards the elective requirements.

## MBA Core Requirements

| Code                              | Title  | Course Units |
|-----------------------------------|--|--------------|
| <b>Accounting</b>                 |  |              |
| Select one of the following:      |  | 0.5-1        |
| ACCT 6110                         | Fundamentals of Financial Accounting                         |              |
| ACCT 6130                         | Fundamentals of Financial and Managerial Accounting          |              |
| <b>Finance <sup>1</sup></b>       |  |              |
| <i>Corporate Finance</i>          |  |              |
| Select one of the following:      |  | 0.5-1        |
| FNCE 6110                         | Corporate Finance  |              |
| FNCE 6210                         | Corporate Finance (Half CU)                                  |              |
| <i>Macroeconomics</i>             |  |              |
| Select one of the following:      |  | 0.5-1        |
| FNCE 6130                         | Macroeconomics and the Global Economic Environment           |              |
| FNCE 6230                         | Macroeconomics and The Global Economic Environment (Half CU) |              |
| <b>Legal Studies</b>              |  |              |
| LGST 6110                         | Responsibility in Global Management                          | 0.5          |
| or LGST 6120                      | Responsibility in Business                                   |              |
| or LGST 6130                      | Business, Social Responsibility, and the Environment         |              |
| <b>Microeconomics</b>             |  |              |
| MGEC 6110                         | Microeconomics for Managers: Foundations                     | 0.5          |
| MGEC 6120                         | Microeconomics for Managers: Advanced Applications           | 0.5          |
| <b>Management</b>                 |  |              |
| MGMT 6100                         | Foundations of Teamwork and Leadership                       | 0.5          |
| MGMT 6110                         | Managing Established Enterprises                             | 1            |
| or MGMT 6120                      | Management of Emerging Enterprises                           |              |
| <b>Marketing</b>                  |  |              |
| MKTG 6110                         | Marketing Management   | 0.5          |
| MKTG 6120                         | Dynamic Marketing Strategy                                   | 0.5          |
| or MKTG 6130                      | Strategic Marketing Simulation                               |              |
| <b>OIDD</b>                       |  |              |
| Select one unit of the following: |  | 0.5-1        |
| OIDD 6110                         | Quality and Productivity                                     |              |
| OIDD 6120                         | Business Analytics   |              |
| OIDD 6130                         | Online Business Models and the Information-Based Firm        |              |
| OIDD 6140                         | Innovation   |              |
| OIDD 6150                         | Operations Strategy  |              |
| OIDD 6620                         | Enabling Technologies  |              |
| OIDD 6900                         | Managerial Decision Making                                   |              |
| <b>Statistics</b>                 |  |              |
| STAT 6130                         | Regression Analysis for Business <sup>2</sup>                | 1            |
| or STAT 6210                      | Accelerated Regression Analysis for Business                 |              |
| <b>Management Communication</b>   |  |              |

|                              |  |            |
|------------------------------|--|------------|
| WHCP 6110                    | Management Communication                       | 0.25       |
| Select one of the following: |  | 0.25       |
| WHCP 6120                    | Advanced Persuasive Speaking                   |            |
| WHCP 6150                    | Communication Challenges for<br>Entrepreneurs: |            |
| WHCP 6240                    | Persuasive Writing for Business Leaders        |            |
| <b>Total Course Units</b>    |  | <b>9.5</b> |

<sup>1</sup> Students cannot enroll in both FNCE 6210 and FNCE 6230.

<sup>2</sup> STAT 6210 is by placement only.

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The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

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