QUANTITATIVE FINANCE (M.S.)

Requirements

Students can complete the program in as few as 12 months, but most choose an 18- to 24-month schedule, because additional time greatly enhances the M.S.Q.F. experience and allows time for employment. From September to May of the first year, students are expected to enroll full-time. After that, students can take classes in the evenings while maintaining a full-time job or internship.

Prerequisites

We'll take a look at your background and decide if you would benefit from some foundational coursework before pursuing the M.S.Q.F. Some students may be asked to take the courses below prior to the start of the program.

Students whose examination results do not meet the minimum standards will be required to take relevant foundation course(s) first and postpone core courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QFGB 8901</td>
<td>Accounting I</td>
<td>1</td>
</tr>
<tr>
<td>QFGB 8902</td>
<td>Basics of Economics</td>
<td>1</td>
</tr>
<tr>
<td>QFGB 8903</td>
<td>Basics of Finance</td>
<td>1</td>
</tr>
<tr>
<td>QFGB 8905</td>
<td>Math for Quantitative Finance</td>
<td>1.5</td>
</tr>
<tr>
<td>QFGB 8906</td>
<td>Probability and Statistics</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Multivariable Calculus (taken outside Fordham)

Ordinary Differential Equations (taken outside Fordham)

Linear Algebra (taken outside Fordham)

Introduction Computer Programming (taken outside Fordham)

QFGB 8901, QFGB 8902, QFGB 8903, QFGB 8905, and QFGB 8906 can be taken through the Gabelli School.

Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QFGB 8911</td>
<td>Financial Markets and Modeling</td>
<td>2</td>
</tr>
<tr>
<td>QFGB 8914</td>
<td>Derivatives</td>
<td>2</td>
</tr>
<tr>
<td>QFGB 8923</td>
<td>Machine Learn &amp; Econometrics</td>
<td>2</td>
</tr>
<tr>
<td>QFGB 8933</td>
<td>Time Series Econometrics</td>
<td>2</td>
</tr>
<tr>
<td>QFGB 8946</td>
<td>Financial Programming</td>
<td>2</td>
</tr>
<tr>
<td>QFGB 8951</td>
<td>Internship and Project Report</td>
<td>2</td>
</tr>
<tr>
<td>QFGB 8952</td>
<td>Business Comm for Quants A</td>
<td>1</td>
</tr>
<tr>
<td>QFGB 8953</td>
<td>Research Seminar 1</td>
<td>1</td>
</tr>
<tr>
<td>QFGB 8954</td>
<td>Research Seminar 2</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>39</td>
</tr>
</tbody>
</table>

2 This course can be waived if the student demonstrates the appropriate background. Students waived from this course complete one additional elective credit and must still complete 39 credits to earn the degree.

3 Please note:

- Quantitative Finance electives include any course with the subject code QFGB numbered 8000-8999. A full list of QFGB courses can be found on the Courses tab.
- A minimum of 24 elective credits must be taken, but students may opt to take more if they choose.

In addition to the available Quantitative Finance electives, up to two of the below courses can be taken to fulfill M.S.Q.F. electives, with approval from the Faculty Program Director and/or Assistant Dean.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFGB 8011</td>
<td>Blockchain</td>
<td>1.5</td>
</tr>
<tr>
<td>GFGB 8012</td>
<td>Digital Currencies</td>
<td>1.5</td>
</tr>
<tr>
<td>ISGB 7967</td>
<td>Data Mining for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISGB 7978</td>
<td>Web Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ISGB 7990</td>
<td>Big Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>ISGB 799Z</td>
<td>Deep Learning</td>
<td>3</td>
</tr>
<tr>
<td>ISGB 79AA</td>
<td>Advanced Python for Financial Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Students are required to take QFGB 8951 Internship and Project Report once, but may take it one additional time as an elective (no more than 4 credits of QFGB 8951 may apply towards the degree).