# Financial Engineering Minor

Financial Engineering is a multidisciplinary field that emphasizes complex modeling and analysis of new financial economic instruments to manage risk, create strategic business opportunities, and access new markets. Especially in today’s highly leveraged domestic markets and fluctuating global business environment, successful management of market, credit, and production risk is essential yet increasingly difficult. This minor equips students with the basic analytical tools to help a business assess and manage financial risks, and can be used to complement a range of majors.

The financial engineering major is a joint program of the Department of Mechanical and Industrial Engineering and the Department of Agricultural Economics and Economics.

## Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECNS 251IS</td>
<td>Honors Economics *</td>
<td>4</td>
</tr>
<tr>
<td>M 171Q</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>M 172Q</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>M 221</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

* May substitute ECNS 202 Principles of Macroeconomics and ECNS 204IS Microeconomics

## Minor Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECNS 301</td>
<td>Intermediate Micro with Calc</td>
<td>3</td>
</tr>
<tr>
<td>ECNS 313</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>EFIN 101</td>
<td>Introduction to Financial Engineering</td>
<td>1</td>
</tr>
<tr>
<td>EFIN 301</td>
<td>Engineering &amp; Economic Financial Management I</td>
<td>3</td>
</tr>
<tr>
<td>EFIN 401</td>
<td>Engineering &amp; Economic Financial Management II</td>
<td>3</td>
</tr>
<tr>
<td>EIND 354</td>
<td>Engineering Probability and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>EIND 364</td>
<td>Principles of Operations Research I</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECNS 345</td>
<td>Econ Org, Finance &amp; Credit</td>
<td>3</td>
</tr>
<tr>
<td>EGEN 325</td>
<td>Engineering Economic Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECNS 309</td>
<td>Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECNS 406</td>
<td>Industrial Organization</td>
<td></td>
</tr>
<tr>
<td>ECNS 461</td>
<td>Financial Econometrics</td>
<td></td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIND 457</td>
<td>Regres &amp; Multivar Analysis</td>
<td>3</td>
</tr>
<tr>
<td>EIND 464</td>
<td>Prin of Operations Research II</td>
<td></td>
</tr>
<tr>
<td>EIND 468</td>
<td>Managerial Forecasting &amp; Decision Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.