(For students admitted in 2018-19 under the 4-year degree)

**BEng in Decision Analytics**

In addition to the requirements of their major programs, students are required to complete the University requirements for graduation. For details please refer to the respective section on this website.

Some courses can be used to fulfill both Major and University Common Core Requirements. Students may reuse a maximum of 6 credits of these courses to count towards both Requirements.

Students may use no more than 6 credits earned from courses offered in pure online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

**Major Requirements**

**Engineering Fundamental Course(s)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Note:</th>
<th>Credit(s) attained</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 1021</td>
<td>OR COMP 1022P OR COMP 1022Q OR COMP 2011</td>
<td>3-4</td>
</tr>
<tr>
<td>COMP 1021</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>COMP 1022P</td>
<td>Introduction to Computing with Java</td>
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<td>COMP 1022Q</td>
<td>Introduction to Computing with Excel VBA</td>
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<tr>
<td>COMP 2011</td>
<td>Programming with C++</td>
<td>4</td>
</tr>
<tr>
<td>ENGG 1010</td>
<td>Academic Orientation</td>
<td>0</td>
</tr>
<tr>
<td>CHEM/PHYS 1010</td>
<td>OR CHEM 1020 OR PHYS 1112 OR PHYS 1312</td>
<td>3</td>
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<tr>
<td>CHEM 1010</td>
<td>General Chemistry IA</td>
<td>3</td>
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<tr>
<td>CHEM 1020</td>
<td>General Chemistry IB</td>
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</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics I with Calculus</td>
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</tr>
<tr>
<td>PHYS 1312</td>
<td>Honors General Physics I</td>
<td>3</td>
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<tr>
<td>LANG 2030</td>
<td>Technical Communication I</td>
<td>3</td>
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<tr>
<td>MATH 1012</td>
<td>Calculus IA</td>
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<tr>
<td>MATH 1013</td>
<td>Calculus IB</td>
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<tr>
<td>MATH 1014</td>
<td>Calculus II</td>
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<tr>
<td>MATH 1020</td>
<td>Accelerated Calculus</td>
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<tr>
<td>MATH 1023</td>
<td>Honors Calculus I</td>
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<tr>
<td>MATH 1024</td>
<td>Honors Calculus II</td>
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<tr>
<td>MATH 2011</td>
<td>Introduction to Multivariable Calculus</td>
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### Required Course(s)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit(s)</th>
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<tbody>
<tr>
<td>IEDA 1010</td>
<td>Academic and Professional Development I</td>
<td>0</td>
</tr>
<tr>
<td>IEDA 1020</td>
<td>Academic and Professional Development II</td>
<td>0</td>
</tr>
<tr>
<td>IEDA 1990</td>
<td>Industrial Training</td>
<td>0</td>
</tr>
<tr>
<td>IEDA 1991</td>
<td>Industrial Experience</td>
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<tr>
<td>IEDA 2520</td>
<td>Probability for Engineers</td>
<td>3</td>
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<tr>
<td>IEDA 2540</td>
<td>Statistics for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>IEDA 3010</td>
<td>Prescriptive Analytics</td>
<td>3</td>
</tr>
<tr>
<td>IEDA 3230</td>
<td>Engineering Economics and Accounting</td>
<td>3</td>
</tr>
<tr>
<td>IEDA 3250</td>
<td>Stochastic Models</td>
<td>3</td>
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<tr>
<td>IEDA 3300</td>
<td>Industrial Data Systems</td>
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<tr>
<td>IEDA 3560</td>
<td>Predictive Analytics</td>
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<tr>
<td>IEDA 4901</td>
<td>Final Year Thesis</td>
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<tr>
<td>IEDA 4920</td>
<td>Decision Analytics Final Year Project</td>
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<td>ENGG 2010</td>
<td>Engineering Seminar Series</td>
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<tr>
<td>ECON 2103</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>ECON 2113</td>
<td>Microeconomics</td>
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</tr>
<tr>
<td>LANG 4032</td>
<td>Technical Communication II for Industrial Engineering and Decision Analytics</td>
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</table>
## Elective(s)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IEDA 3180</td>
<td>Data-Driven Portfolio Optimization</td>
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<tr>
<td>IEDA 3330</td>
<td>Introduction to Financial Engineering</td>
<td>3</td>
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<tr>
<td>IEDA 4331</td>
<td>Quantitative Methods in Financial Engineering</td>
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<tr>
<td>IEDA 4500</td>
<td>Engineering Foundations of FinTech</td>
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<tr>
<td>IEDA 4510</td>
<td>Systems Risk Management</td>
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<tr>
<td>IEDA 4520</td>
<td>Numerical Methods for Financial Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ISOM 4840</td>
<td>Financial Service Operations Management</td>
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<tr>
<td>IEDA 3302</td>
<td>E-Commerce Technology and Applications</td>
<td>3</td>
</tr>
<tr>
<td>IEDA 3460</td>
<td>Demand and Supply Analytics</td>
<td>3</td>
</tr>
<tr>
<td>IEDA 4100</td>
<td>Integrated Production Systems</td>
<td>3</td>
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<tr>
<td>IEDA 4180</td>
<td>Service Engineering and Management</td>
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<tr>
<td>IEDA 4410</td>
<td>Data Driven Supply Chain Management</td>
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<tr>
<td>IEDA 4420</td>
<td>Dynamic Pricing and Revenue Optimization</td>
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*IEDA 15 Area Electives (5 courses from the specified elective list, of which all 5 courses should be taken from the same area)*

Minimum credit(s) required: 15