Chemical Engineering and Business (Option C)

September 2017

**Year 2:**

**Term A**
- AM 2270a  Applied Math for Engineering II
- CBE 2206a  Industrial Organic Chemistry I
- CBE 2214a  Engineering Thermodynamics
- CBE 2220a  Chemical Process Calculations
- CBE 2290a  Fundamentals of Biochemical and Environmental Engineering
- Bus 2257  Accounting & Business Analysis

**Term B**
- AM 2277b  Applied Math Chemical and Civil Engineering III
- CBE 2207b  Industrial Organic Chemistry II
- CBE 2221b  Fluid Flow
- CBE 2224b  Chemical Eng. Thermodynamics
- CBE 2291b  Computational Methods for Engineering
- Bus 2257  Accounting & Business Analysis

**Year 3: HBA 1**

**Year 4:**

**Term A**
- CBE 3315a  Reaction Engineering
- CBE 3318a  Introduction to Chemical Process Simulation
- CBE 3322a  Heat Transfer Operations
- CBE 3325a  Particulate Operations
- CBE 3395y  Chemical Engineering Lab
- Bus 4569  Ivey Field Project

**Term B**
- CBE 3310b  Process Dynamics and Control
- CBE 3319b  Introduction to Plant Design and Safety
- CBE 3324b  Mass Transfer Operations
- CBE 3323b  Staged Operations
- CBE 3395y  Chemical Engineering Lab
- ECE 2208b  Electrical Measurements
- SS 2143b  Applied Statistics and Data Analysis for Engineers

**Year 5:**

**Term A**
- CBE 4497  Chemical Process and Plant Design
- Bus 4505a  Global Macroeconomics for Managers
- Bus 4521a/b or 4522a/b or 4523a/b  One 0.5 technical elective
- 0.5 Business electives chosen from 4000 level Business courses.

**Term B**
- CBE 4497  Chemical Process and Plant Design
- ES 4498G  Engineering Ethics, Sustainable Development and the Law
- One 0.5 technical elective
- 1.5 Business electives chosen from 4000 level Business courses.

**Technical Elective List:**

Some technical electives may not be offered in a given academic year. Consult the department for accurate listing.

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
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<tbody>
<tr>
<td>CBE 4404a/b  Downstream Processing in Pharmaceutical Manufacturing</td>
<td>CBE 4403a/b  Biochemical Separation Process</td>
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<tr>
<td>CBE 4413a/b  Selected Topic in Chemical Engineering</td>
<td>CBE 4407a/b  Solid Waste Treatment</td>
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<td>CBE 4417a/b  Catalytic Processes</td>
<td>CBE 4409a/b  Wastewater Treatment</td>
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<tr>
<td>CBE 4418a/b  Industrial Multiphase Reactor Design</td>
<td>CBE 4463a/b  Water Pollution Design</td>
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<tr>
<td>CBE 4420a/b  Computer Process Control</td>
<td>GPE 4484a/b  Green Fuels and Chemicals</td>
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<td>CBE 4421a/b  Introduction to Biomaterials Engineering</td>
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<td>CBE 4422a/b  Nanobiotechnology</td>
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<td>CBE 4423a/b  Tissue Engineering</td>
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<td>CBE 4424a/b  Biosensor Principles and Applications</td>
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<td>CBE 4432a/b  Energy and Fuels Production Systems</td>
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<tr>
<td>CBE 4493a/b  Polymer Engineering</td>
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