# Green Process Engineering

**September 2017** (students who entered first year *prior* to September 2016)

### Year 2:

#### Term A
- AM 2270a  Applied Math for Engineering II
- GPE 2213a  Green Chemistry I
- CBE 2214a  Engineering Thermodynamics
- CBE 2220a  Chemical Process Calculations
- CBE 2290a  Fundamental of Biochemical and Environmental Engineering
- ES 2211F  Engineering Communications

#### Term B
- AM 2277b  Applied Math Chemical and Civil Engineering III
- GPE 2214b  Green Chemistry II
- CBE 2224b  Chemical Engineering Thermodynamics
- CBE 2221b  Fluid Flow
- CBE 2291b  Computational Methods for Engineers
- ECE 2238b  Introduction to Electrical Engineering

### Year 3:

#### Term A
- CBE 3318a  Introduction to Chemical Process Simulation
- GPE 3315a  Reaction Engineering with Green Engineering Applications
- CBE 3322a  Heat Transfer Operations
- GPE 3385a  Green Power
- GPE 3383a  Solar and Fuel Cells
- GPE 3395y  Green Process Engineering Laboratory Course

#### Term B
- CBE 3310b  Process Dynamics & Control
- CBE 3324b  Mass Transfer Operations
- GPE 3382b  Fundamentals of Green Process Engineering and safety
- CBE 3323b  Staged Operations
- SS 2143b  Applied Statistics and Data Analysis
- GPE 3386b  Sustainable Engineering Life Cycle Analysis and Case Studies
- GPE 3395y  Green Process Engineering Laboratory Course

### Year 4:

#### Term A
- Bus 2299E  Business for Engineers
- GPE 4497  Green Process Design
- GPE 4484a  Green Fuels and Chemicals
- GPE 4415*  Green Process Engineering Project

0.5 non-technical elective taken from the approved list (either term)
One of:  CBE 4407a/b, CBE 4409a/b, CEE 4405a/b

**Technical Elective List:**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CBE 3330a/b</td>
<td>Bioreaction and Bioprocess Engineering</td>
</tr>
<tr>
<td>CBE 4407a/b</td>
<td>Solid Waste Treatment</td>
</tr>
<tr>
<td>CBE 4409a/b</td>
<td>Wastewater Treatment</td>
</tr>
<tr>
<td>CBE 4417a/b</td>
<td>Catalytic Processes</td>
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<tr>
<td>CBE 4432a/b</td>
<td>Energy and Fuels Production Systems</td>
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<tr>
<td>CBE 4493a/b</td>
<td>Polymer Engineering</td>
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<tr>
<td>CEE 3362a/b</td>
<td>Drinking Water Quality and Treatment</td>
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<tr>
<td>CEE 4405a/b</td>
<td>Air Pollution</td>
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*A student may substitute two 0.5 technical electives from the list provided for GPE 4415.*