# Green Process Engineering

**September 2018** (students who entered *first year* in September 2017)

## Year 2:

### Term A
- AM 2270a: Applied Math for Engineering II
- CBE 2206a: Introductory Industrial Organic Chemistry
- CBE 2214a: Engineering Thermodynamics
- CBE 2220a: Chemical Process Calculations
- CBE 2290a: Fundamental of Biochemical and Environmental Engineering
- Writing: Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers

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

## Year 3:

### Term A
- GPE 3315a: Reaction Engineering with Green Engineering Applications
- GPE 3384a: Sustainable Energy, Solar and Fuel Cells
- GPE 3395y: Green Process Engineering Laboratory Course
- CBE 3318a: Introduction to Chemical Process Simulation
- CBE 3322a: Heat Transfer Operations
- GPE 3382a: Fundamentals of Green Process Engineering and Safety

### Term B
- GPE 3386b: Sustainable Engineering Life Cycle Analysis and Case Studies
- GPE 3395y: Green Process Engineering Laboratory Course
- CBE 3310b: Process Dynamics & Control
- CBE 3323b: Staged Operations
- CBE 3324b: Mass Transfer Operations
- SS 2143b: Applied Statistics and Data Analysis
- 0.5 Non-technical elective taken from the approved list

## Year 4:

### Term A
- GPE 4497: Green Process Design
- GPE 4484a: Green Fuels and Chemicals
- GPE 4415*: Green Process Engineering Project
- 1.0 Non-technical elective taken from the approved list
- One 0.5 Technical elective

### Term B
- GPE 4497: Green Process Design
- GPE 4415*: Green Process Engineering Project
- ES 4498G: Engineering Ethics, Sustainable Development and the Law
- One 0.5 Technical elective

## NOTES:

### Important:
Students are responsible for ensuring they have the correct courses required for their degree. If you are unsure which courses you still need or if you see courses listed on the progression sheet that are no longer offered or are not offered in the term you see listed here, please contact your Academic Counsellor.

### Non-technical Electives:
Please choose a maximum of 1.0 credits (one 1.0 credit course or two 0.5 credit courses) from the 1000 level and a minimum of one 0.5 credit from the 2000 (or higher) level.

http://www.eng.uwo.ca/undergraduate/upper_year/electives.html

### Technical Elective List:
Some technical electives may not be offered in a given academic year. Consult the Academic Timetable for a current listing.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CBE 3325a/b</td>
<td>Particulate Operations</td>
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<tr>
<td>CBE 3330a/b</td>
<td>Bioreaction and Bioprocess Engineering</td>
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<tr>
<td>CBE 4404a/b</td>
<td>Downstream Processing in Pharmaceutical Manufacturing</td>
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<tr>
<td>CBE 4407a/b</td>
<td>Solid Waste Treatment</td>
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<tr>
<td>CBE 4409a/b</td>
<td>Wastewater Treatment</td>
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<tr>
<td>CBE 4417a/b</td>
<td>Catalytic Processes</td>
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<tr>
<td>CBE 4418a/b</td>
<td>Industrial Multiphase Reactor Design</td>
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<tr>
<td>CBE 4420a/b</td>
<td>Computer Process Control</td>
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<tr>
<td>CBE 4421a/b</td>
<td>Introduction to Biomaterials Engineering</td>
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<tr>
<td>CBE 4422a/b</td>
<td>Nanobiotechnology</td>
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<tr>
<td>CBE 4423a/b</td>
<td>Tissue Engineering</td>
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<tr>
<td>CBE 4424a/b</td>
<td>Biosensors Principles and Applications</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 4463a/b</td>
<td>Water Pollution Design</td>
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<td>CBE 4485a/b</td>
<td>Energy and Society</td>
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<tr>
<td>CBE 4493a/b</td>
<td>Polymer Engineering</td>
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<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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<tr>
<td>MME 4429a/b</td>
<td>Nuclear Engineering</td>
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*A student may substitute two 0.5 technical electives from the list provided for GPE 4415.