

## Green Process Engineering and Business (Option B)

September 2019 (for students who entered HBA in September 2017 or later)

### 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
Bus 2257	Accounting & Business Analysis

#### Term B

AM 2277b	Applied Math Chemical and Civil Engineering III
GPE 2214b	Green Chemistry for Industrial Processes
CBE 2224b	Chemical Engineering Thermodynamics
CBE 2221b	Fluid Flow
CBE 2291b	Computational Methods for Engineers
Bus 2257	Accounting & Business Analysis

### Year 3: HBA 1

### Year 4:

#### Term A

GPE 3315a	Reaction Engineering with Green Engineering Applications
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
Bus 4569	Ivey Field Project

#### 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
ECE 2238b	Introduction to Electrical Engineering
SS 2143b	Applied Statistics and Data Analysis

### Year 5:

#### Term A

GPE 4484a	Green Fuels and Chemicals
GPE 4497	Green Process Design
GPE 3384a	Sustainable Energy, Solar and Fuel Cells
1.5 HBA required courses**	

#### Term B

GPE 4497	Green Process 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.	

### NOTES:

#### \*\*1.5 HBA required courses:

- International Perspective Requirement: Business 4505a/b
- Corporations and Society Requirement: at least 0.5 course from Business Administration – Corporations and Society designated electives offered during the academic year or other business elective as determined and approved by the HBA Program Director to satisfy this requirement.
- Managerial Accounting Requirement: Business 4624a/b

#### 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. For HBA related questions, please contact the Richard Ivey School of Business. For Engineering related questions, please contact your Academic Counsellor in Engineering.

#### Technical Electives List:

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

CBE 3325a/b	Particulate Operations
CBE 3330a/b	Bioreaction and Bioprocess Engineering
CBE 4404a/b	Downstream Processing in Pharmaceutical Manufacturing
CBE 4407a/b	Solid Waste Treatment
CBE 4409a/b	Wastewater Treatment
GPE 4415	Green Process Engineering Project
CBE 4417a/b	Catalytic Processes
CBE 4418a/b	Industrial Multiphase Reactor Design
CBE 4420a/b	Computer Process Control
CBE 4421a/b	Introduction to Biomaterials Engineering
CBE 4422a/b	Nanobiotechnology
CBE 4423a/b	Tissue Engineering
CBE 4424a/b	Biosensors Principles and Applications
CBE 4432a/b	Energy and Fuels Production Systems
CBE 4463a/b	Water Pollution Design
CBE 4485a/b	Energy and Society
CBE 4493a/b	Polymer Engineering
CEE 3362a/b	Drinking Water Quality and Treatment
CEE 4405a/b	Air Pollution
MME 4429a/b	Nuclear Engineering

\*A student may substitute two 0.5 technical electives from the list provided for GPE 4415.

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