## Year 2

### Term A
- NMM 2270A: Applied Mathematics for Engineering II (Formerly AM 2270A)
- BME 3201A: Fundamentals of Biomedical Engineering Design
- CBE 2206A: Industrial Organic Chemistry I
- CBE 2214A: Engineering Thermodynamics
- CBE 2220A: Chemical Process Calculations
- CBE 2290A: Fundamentals of Biochemical and Environmental Engineering

### Term B
- NMM 2277B: Applied Mathematics for Chemical & Civil Engineering III (Formerly AM 2277B)
- CBE 2207B: Industrial Organic Chemistry II
- CBE 2221B: Fluid Flow
- CBE 2224B: Chemical Engineering Thermodynamics
- CBE 2291B: Computational Methods for Engineering
- SS 2143B: Applied Statistics and Data Analysis for Engineers

## Year 3

### Term A
- Biol 1001A: Biology for Science I
- CBE 3307A: Energy and Environment
- CBE 3315A: Reaction Engineering
- CBE 3322A: Heat Transfer Operations
- CBE 3324A: Mass Transfer Operations
- CBE 3395Y: Chemical Engineering Lab

### Term B
- Biol 1002B: Biology for Sciences II
- CBE 3310B: Process Dynamics and Control
- CBE 3318B: Introduction to Chemical Process Simulation
- CBE 3319B: Introduction to Plant Design and Safety
- CBE 3323B: Staged Operations
- CBE 3395Y: Chemical Engineering Lab
- CBE 3316B: Sustainable Chemical Engineering & Life Cycle Analysis

### Technical Elective List:
Some technical electives may not be offered in a given academic year. Consult the Department for accurate listing. Courses that do not appear on the list below require special permission from the Department.

### Biomedical Sciences Electives
- Biochemistry 3385A/B: Human Biochemistry
- Biochemistry 3386A/B: Clinical Biochemistry
- Biology 2382A/B: Cell Biology
- Biology 2581A/B: Genetics
- Chemistry 2213A/B: Organic Chemistry
- Chemistry 2283F/G: Organic Chemistry II
- Communication Sciences and Disorders 4417A/B: Hearing Science
- Health Science 2300A/B: Systemic Approach to Functional Anatomy
- Health Science 3300A/B: Anatomy of the Human Body
- Medical Science 4931F/G: Selected Topics in Medical Science
- Physiology 3140A/B: Cellular Physiology
- Psychology 2220A/B: Intro. to Behavioural & Cognitive Neuroscience

### Non-technical Electives
Students are required to complete 1.5 credits of non-technical electives as part of the program.

#### a) First 0.5 credit
- The first 0.5 credit can come from the approved non-technical elective list (https://www.eng.uwo.ca/undergraduate/upper-year/electives.html).

#### b) Remaining 1.0 credits
- The remaining 1.0 credits must come from the following Healthcare Non-technical Elective list.

**Students must pay attention when selecting the first 0.5 credit to ensure appropriate prerequisite courses are completed for the non-technical electives below.**

### Healthcare Non-technical Electives
- Anthropology 2290F/G: Cultures of Health and Healing
- Economics 2169F/G: Economics of Health Care
- History 2195A/B: Epidemics in North America
- Law 3101A/B: Healthcare Law
- Philosophy 2071E: Biomedical Ethics
- Philosophy 2072F/G: Bioethics and Disability
- Philosophy 2715F/G: Health Care Ethics
- Political Science 2276F/G: The Politics of Health Care
- Religious Studies 2239F/G: Christian Bioethics
- Sociology 2179A/B: Promotion of Community Health
- Sociology 2180A/B: Development of Health Inequalities
- Women’s Studies 2244: Women and Health

The official version of the academic calendar can be found at: www.westerncalendar.uwo.ca
### Year 5

#### Term A
- **BME 4400** Biomedical Engineering Research Thesis (1.5-credit course)
- **CBE 4421A** Introduction to Biomaterials Engineering
- **CBE 4497** Chemical Process and Plant Design
- **ELI 4110f** Engineering Ethics, Sustainable Development and the Law
  - One 0.5-credit CBE technical elective
  
  (https://www.eng.uwo.ca/undergraduate/upper-year/next.html)

#### Term B
- **BME 4400** Biomedical Engineering Research Thesis (1.5-credit course)
- **CBE 4497** Chemical Process and Plant
- **ELI 3200b** Engineering Innovation I: New Venture Creation
  - Two 0.5-credit BME technical electives
  - One 0.5-credit CBE technical elective
  
  (https://www.eng.uwo.ca/undergraduate/upper-year/next.html)

<table>
<thead>
<tr>
<th>Biomedical Engineering (BME) Electives</th>
<th>CBE 4423A/B</th>
<th>Tissue Engineering</th>
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<tbody>
<tr>
<td>Medical Biophysics 3507F/G</td>
<td>Analysis of Oxygen Transport</td>
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<tr>
<td>Medical Biophysics 3645A/B</td>
<td>Intro. to Biomedical Optics</td>
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<tr>
<td>Medical Biophysics 4475A/B</td>
<td>Medical Imaging</td>
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<tr>
<td>Medical Biophysics 4535A/B</td>
<td>Hemodynamics</td>
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**Open Electives**

For the course credit designated as an “open elective”, students may select any course from the lists of: Biomedical Science electives; BME technical electives; CBE technical electives; Healthcare non-technical electives; or Faculty of Engineering approved non-technical electives.