**Course progression map for 2018 commencing students**

This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course ‘Requirements’ section of the **Handbook**, Update version: 16 October 2019

**E3008 Bachelor of Engineering (Honours) and Bachelor of Pharmaceutical Science**

**Engineering specialisation – Chemical engineering**

**Pharmaceutical science specialisation - Formulation science**

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester 1</th>
<th>Year</th>
<th>Semester 2</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>BPS1011 Human physiology I: Cells to systems</td>
<td>YEAR 2</td>
<td>Semester 1</td>
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<tr>
<td></td>
<td>BPS1021 Medical chemistry I: Structure</td>
<td>YEAR 2</td>
<td>Semester 2</td>
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<td>BPS1031 Physical chemistry I: Equilibria and change</td>
<td>YEAR 3</td>
<td>Semester 1</td>
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<td>BPS1041 Scientific inquiry</td>
<td>YEAR 3</td>
<td>Semester 2</td>
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<td>BPS1012 Human physiology I: Body systems</td>
<td>YEAR 4</td>
<td>Semester 1</td>
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<tr>
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<td>BPS1022 Medical chemistry II: Reactivity and biomolecules</td>
<td>YEAR 4</td>
<td>Semester 2</td>
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<td>BPS1032 Physical chemistry II: Solutions, surfaces and solids</td>
<td>YEAR 5</td>
<td>Semester 1</td>
</tr>
<tr>
<td></td>
<td>BPS1042 Pharmaceutical science in context</td>
<td>YEAR 5</td>
<td>Semester 2</td>
</tr>
</tbody>
</table>

**Note:**
- Depending on placement location, students who choose CHE4164 may have to overload a semester or extend an additional semester in order to complete their course requirement.
- Students should not overload in the semester of undertaking CHE4170.
- All students are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the [CPD webpage](#).
- For enrolment advice, please refer to the [Course advisers webpage](#).

This course map is recommended as a guide only and subject to updates.

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**Chemical engineering**

- CHE31616 Chemistry and chemical thermodynamics
- CHE31616 Separation processes
- Free elective or ENG1060 Computing for engineers (if not completed)
- ENG2005 Advanced engineering mathematics
- CHE3167 Transport phenomena and numerical methods (for students planning to enrol in CHE4164)
- CHE3167 Transport phenomena and numerical methods

**Pharmaceutical science**

- BPS1001 Human physiology I: Cells to systems
- BPS1011 Human physiology I: Body systems
- BPS1021 Medical chemistry I: Structure
- BPS1022 Medical chemistry II: Reactivity and biomolecules
- BPS1031 Physical chemistry I: Equilibria and change
- BPS1032 Physical chemistry II: Solutions, surfaces and solids
- BPS1041 Scientific inquiry
- BPS1042 Pharmaceutical science in context
- BPS2031 Analytical methods I: Principles and applications
- BPS2041 Drug delivery and Pharmacokinetics
- BPS3311 Industrial formulation
- BPS3331 Pharmaceutical product development and manufacture
- BPS3332 Applied pharmacokinetics and pharmacodynamics
- CHE3166 Process design
- CHE2161 Mechanics of fluids
- CHE2166 Introduction to process simulation
- CHE3164 Reaction engineering

**SEMESTER 1**

- CHE4164 Integrated industrial project (18 points)
- For selected students taking a period of integrated industrial training in the first semester of their final year. This will replace the two core units below [CHE4180 and CHE4161]
- CHE4161 Engineers in society
- CHE4180 Chemical engineering project
- CHE3167 Transport phenomena and numerical methods
- CHE3167 Transport phenomena and numerical methods
- CHE3162 Process control

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