

# 2022 Study Plan

## Bachelor of Engineering (Honours) (Chemical) with Bachelor of Science

### Semester 1 Start

| Year 1  |  |   |   |   |
|---|--|---|---|---|
| S<br>1  | MATHS 1011<br>Mathematics IA <input type="checkbox"/>                          | *CHEM 1100 Chemistry IA <b>OR</b><br>CHEM 1101 Foundations of Chemistry IA <input type="checkbox"/> | CHEM ENG 1007<br>Introduction to Process Engineering <input type="checkbox"/> | ~Level I Science Elective <input type="checkbox"/>                                      |
| S<br>2  | MATHS 1012<br>Mathematics IB <input type="checkbox"/>                          | *CHEM 1200 Chemistry IB <b>OR</b><br>CHEM 1201 Foundations of Chemistry IB <input type="checkbox"/> | ^ENG 1001<br>Introduction to Engineering <input type="checkbox"/>             | ~Level I Science Elective <input type="checkbox"/>                                      |
| Year 2  |  |   |   |   |
| S<br>1  | MATHS 2106<br>Differential Equations for Engineers II <input type="checkbox"/> | ENG 1003<br>Programming (Matlab and Excel) <input type="checkbox"/>                                 | CHEM ENG 2018<br>Process Fluid Mechanics <input type="checkbox"/>             | CHEM ENG 2010<br>Process Design II <input type="checkbox"/>                             |
| S<br>2  | MATHS 2107<br>Statistics & Numerical Methods II <input type="checkbox"/>       | CHEM ENG 2011<br>Process Engineering Thermodynamics <input type="checkbox"/>                        | CHEM ENG 2014<br>Heat and Mass Transfer <input type="checkbox"/>              | ~Level II Science Elective <input type="checkbox"/>                                     |
| Year 3  |  |   |   |   |
| S<br>1  | ENG 3005<br>Research Methods & Project Management <input type="checkbox"/>     | CHEM ENG 3034<br>Chemical Reactor Engineering <input type="checkbox"/>                              | ~Level II Science Elective <input type="checkbox"/>                           | ~Level II Science Elective <input type="checkbox"/>                                     |
| S<br>2  | CHEM ENG 3033<br>Separation Process Engineering <input type="checkbox"/>       | CHEM ENG 3030<br>Process Design III <input type="checkbox"/>  | CHEM ENG 3031<br>Process Control & Instrumentation <input type="checkbox"/>   | ~Level II Science Elective <input type="checkbox"/>                                     |
| Internship  |  |   |   |   |
| All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of <a href="#">internship</a> during the course of their studies – see note below elective table. |  |   |   |   |
| Year 4  |  |   |   |   |
| S<br>1  | CHEM ENG 3035<br>Fluid & Particle Mechanics <input type="checkbox"/>           | ~Level III Science Elective <input type="checkbox"/>  | ~Level III Science Elective <input type="checkbox"/>                          | ~Level III Science Elective <input type="checkbox"/>                                    |
| S<br>2  | CHEM ENG 3036<br>Unit Operations Laboratory <input type="checkbox"/>           | ~Level III Science Elective <input type="checkbox"/>  | ~Level III Science Elective <input type="checkbox"/>                          | ~Level III Science Elective <input type="checkbox"/>                                    |
| Year 5  |  |   |   |   |
| S<br>1  | CHEM ENG 4056<br>Process Design IV <input type="checkbox"/>                    | CHEM ENG 4034<br>Chemical Engineering Practice <input type="checkbox"/>                             | CHEM ENG 4050<br>Advanced Chemical Engineering <input type="checkbox"/>       | CHEM ENG 3029<br>Material Science and Engineering <input type="checkbox"/>              |
| S<br>2  | CHEM ENG 4054<br>Research Project <input type="checkbox"/>                     | CHEM ENG 4014<br>Plant Design Project (6 units) <input type="checkbox"/>                            |   | Level IV Chemical Engineering Elective<br>(see elective table) <input type="checkbox"/> |
| Core Courses  | Elective (see table)   | Double Degree Courses   |   |   |

See study plan notes below elective table.

### Electives Table

| Level II Chemical Engineering Elective |                                |  |           |   |  |
|--|--------------------------------|--|-----------|---|--|
|  |                                |  | <b>S2</b> | CHEM ENG 2012<br>CHEM ENG 2019<br>CHEM ENG 2073 | Pharmaceutical Production Processes<br>Introduction to Minerals Processing<br>Food Engineering |
| Level IV Chemical Engineering Elective |                                |  |           |   |  |
| <b>S1</b>                              | CHEM ENG 4051<br>MECH ENG 4112 | Water and Wastewater Engineering<br>Combustion Technologies & High Temperature Processes | <b>S2</b> | CHEM ENG 4048<br>CHEM ENG 4058                  | Biofuels, Biomass and Wastes<br>Metallurgical Processes  |
| <b>TBC</b>                             | CHEM-ENG-4075                  | Winery Engineering ( <i>not offered 2022</i> )   | <b>WS</b> | CHEM ENG 4074                                   | Brewery Engineering  |

#### NOTES

**^EAL:** Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering

**\*Chemistry:** Students with at least C+ in SACE Stage 2 Chemistry (or equivalent) must enrol in CHEM 1100 Chemistry IA and CHEM 1200 Chemistry IB. All other students must enrol into CHEM 1101 Foundations of Chemistry IA and CHEM 1201 Foundations of Chemistry IB.

**~Science Electives:** Science Electives may be chosen from courses listed in the Program Rules for the degree of Bachelor of Science. Students must complete a major in accordance with the Program Rules for the Bachelor of Science: <https://calendar.adelaide.edu.au/faculty/sciences>

**Internships:** All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship during the course of their studies. Internships are self-sourced and further information can be found on the Engineering Internships web page: <https://ecms.adelaide.edu.au/study-with-us/student-support/internships/engineering>.

**Program Rules:** For academic program rules please refer to the following website: <https://calendar.adelaide.edu.au/faculty/ecms>

#### Information and Enrolment Advice:

Ask ECMS

Email: [askecms@adelaide.edu.au](mailto:askecms@adelaide.edu.au)

Website: <https://ecms.adelaide.edu.au/study-with-us/student-support>