

School of Civil, Environmental & Mining Engineering

Bachelor of Engineering (Honours) (Mining) with Bachelor of Mathematical and Computer Sciences - Mathematics Major – All Majors

**Semester 1 Start**

[Bachelor of Engineering \(Honours\) \(Mining\) with Bachelor of Mathematical and Computer Sciences - Mathematics Major](#)

[Bachelor of Engineering \(Honours\) \(Mining\) - Mine Automation Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major](#)

Bachelor of Engineering (Honours) (Mining)  
with Bachelor of Mathematical and Computer Sciences - Mathematics Major

| Year 1  |   |   |  |  |
|---|---|---|--|--|
| S 1   | MATHS 1011 Mathematics IA <input type="checkbox"/>                          | ENG 1003 Programming (Matlab and Excel) <input type="checkbox"/>          | CEME 1004 Engineering Mechanics-Statics <input type="checkbox"/>           | General Elective <input type="checkbox"/>                                  |
| S 2   | MATHS 1012 Mathematics IB <input type="checkbox"/>                          | ^ENG 1001 Introduction to Engineering <input type="checkbox"/>            | MINING 1011 Introduction to Mining Engineering <input type="checkbox"/>    | Level 1 Engineering Elective (see elective table) <input type="checkbox"/> |
| Year 2  |   |   |  |  |
| S 1   | MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/> | CEME 2001 Strength of Materials <input type="checkbox"/>                  | MECH ENG 2021 Thermo-Fluids I <input type="checkbox"/>                     | Level II or III Mathematics Elective <input type="checkbox"/>              |
| S 2   | MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>       | GEOLOGY 2504 Economic & Mine Geology II <input type="checkbox"/>          | General Elective <input type="checkbox"/>                                  | Level II or III Mathematics Elective <input type="checkbox"/>              |
| Year 3  |   |   |  |  |
| S 1   | ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/>   | MINING 3070 Resource Estimation <input type="checkbox"/>                  | MINING 3071 Mining Systems <input type="checkbox"/>                        | MINING 3072 Mining Geomechanics <input type="checkbox"/>                   |
| S 2   | ENG 3005 Research Method & Project Management <input type="checkbox"/>      | MINING 3068 Mining Ventilation <input type="checkbox"/>                   | MINING 3069 Rock Breakage <input type="checkbox"/>                         | MINING 3073 Mine Planning <input type="checkbox"/>                         |
| Internship  |   |   |  |  |
| All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship (6 units) during the course of their studies – see note below elective table. |   |   |  |  |
| Year 4  |   |   |  |  |
| S 1   | ENG 4001A Research Project Part A <input type="checkbox"/>                  | MINING 4102 Mine Geotechnical Engineering <input type="checkbox"/>        | MINING 4104 Socio-Environmental Aspects of Mining <input type="checkbox"/> | MINING 4106 Hard Rock Design & Feasibility <input type="checkbox"/>        |
| S 2   | ENG 4001B Research Project Part B <input type="checkbox"/>                  | MINING 4101 Mine Management <input type="checkbox"/>                      | MINING 4111 Coal Mine Design & Feasibility <input type="checkbox"/>        | Level II or III Mathematics Elective <input type="checkbox"/>              |
| Year 5  |   |   |  |  |
| S 1   | Mining Engineering Elective (see elective table) <input type="checkbox"/>   | Level II or III Mathematics Elective <input type="checkbox"/>             | Level III Mathematics Elective <input type="checkbox"/>                    | Level III Mathematics Elective <input type="checkbox"/>                    |
| S 2   | Mining Engineering Elective (see elective table) <input type="checkbox"/>   | Mining Engineering Elective (see elective table) <input type="checkbox"/> | Level III Mathematics Elective <input type="checkbox"/>                    | Level III Mathematics Elective <input type="checkbox"/>                    |

## Electives Table

| CHOOSE FROM THE FOLLOWING MINING ENGINEERING ELECTIVES |   |   |   |   |
|--|---|---|---|---|
| S1   | <input type="checkbox"/>  | <input type="checkbox"/>  | ENG 4011 Engineering Geology <input type="checkbox"/> | MINING 4107 Surface Mining Systems <input type="checkbox"/> |
| S2   | MINING 4112 Advanced Mine Geotechnical Engineering <input type="checkbox"/> | MINING 4110 Mine Asset Management & Services <input type="checkbox"/> | MINING 4113 Advanced Mine Ventilation                 | MINING 4114 Simulation & Animation for Mining Engineers     |

### NOTES

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

**# Maths:** Students who have not passed SACE Stage 2 Specialist Maths must enrol in MATHS 1013 Mathematics IM before enrolling in MATHS 1011 Mathematics IA. Manage your enrolment by completing MATHS 1013 Mathematics IM in semester 1 followed by MATHS 1011 Mathematics IA in semester 2 and MATHS 1012 Mathematics IB in summer school. MATHS 1013 Mathematics IM is in addition to the requirements of this program.

**Internships:** The 8 weeks of internship must be supervised by a qualified engineer and may be completed in one placement or a series of placements. The Faculty recommends students undertake internships upon commencement of third year engineering courses. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through [Careers Service](#). Register with CareerHub to access a database where opportunities are posted.

**General Electives:** How to choose an elective course in your area of interest? Please refer to the steps via the link: <https://ecms.adelaide.edu.au/study-with-us/student-support/enrolment>

**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>

## Bachelor of Engineering (Honours) (Mining) - Mine Automation Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major

| Year 1  |   |  |  |   |
|---|---|--|--|---|
| S 1   | MATHS 1011 Mathematics IA <input type="checkbox"/>                          | ENG 1003 Programming (Matlab and Excel) <input type="checkbox"/>   | CEME 1004 Engineering Mechanics-Statics <input type="checkbox"/>           | ELEC ENG 1101 Electronic Systems <input type="checkbox"/>               |
| S 2   | MATHS 1012 Mathematics IB <input type="checkbox"/>                          | ^ENG 1001 Introduction to Engineering <input type="checkbox"/>     | MINING 1011 Introduction to Mining Engineering <input type="checkbox"/>    | MECH ENG 1007 Engineering Mechanics (Dynamics) <input type="checkbox"/> |
| Year 2  |   |  |  |   |
| S 1   | MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/> | CEME 2001 Strength of Materials <input type="checkbox"/>           | MECH ENG 2021 Thermo-Fluids I <input type="checkbox"/>                     | Level II or III Mathematics Elective <input type="checkbox"/>           |
| S 2   | MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>       | GEOLOGY 2504 Economic & Mine Geology II <input type="checkbox"/>   | MECH ENG 2101 Mechatronics IM <input type="checkbox"/>                     | Level II or III Mathematics Elective <input type="checkbox"/>           |
| Year 3  |   |  |  |   |
| S 1   | ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/>   | MINING 3070 Resource Estimation <input type="checkbox"/>           | MINING 3071 Mining Systems <input type="checkbox"/>                        | MINING 3072 Mining Geomechanics <input type="checkbox"/>                |
| S 2   | ENG 3005 Research Method & Project Management <input type="checkbox"/>      | MINING 3068 Mining Ventilation <input type="checkbox"/>            | MINING 3069 Rock Breakage <input type="checkbox"/>                         | MINING 3073 Mine Planning <input type="checkbox"/>                      |
| Internship  |   |  |  |   |
| All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship (6 units) during the course of their studies – see note below elective table. |   |  |  |   |
| Year 4  |   |  |  |   |
| S 1   | ENG 4001A Research Project Part A <input type="checkbox"/>                  | MINING 4102 Mine Geotechnical Engineering <input type="checkbox"/> | MINING 4104 Socio-Environmental Aspects of Mining <input type="checkbox"/> | MINING 4106 Hard Rock Design & Feasibility <input type="checkbox"/>     |
| S 2   | ENG 4001B Research Project Part B <input type="checkbox"/>                  | MINING 4101 Mine Management <input type="checkbox"/>               | MINING 4111 Coal Mine Design & Feasibility <input type="checkbox"/>        | ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>        |
| Year 5  |   |  |  |   |
| S 1   | MECH ENG 3106 Mechatronics II <input type="checkbox"/>                      | Level II or III Mathematics Elective <input type="checkbox"/>      | Level II or III Mathematics Elective <input type="checkbox"/>              | Level III Mathematics Elective <input type="checkbox"/>                 |
| S 2   | MINING 4115 Automation in Mining <input type="checkbox"/>                   | Level III Mathematics Elective <input type="checkbox"/>            | Level III Mathematics Elective <input type="checkbox"/>                    | Level III Mathematics Elective <input type="checkbox"/>                 |

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