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Full Course Description

- Chemistry (BSc)
- Mathematics and Statistics (BSc)
- Metallurgical Engineering (BE)
- Metallurgical Engineering (BE) + Chemistry (BSc)
- Mineral Science (BSc)

Checklist of Units and Prerequisites

- Chemistry (BSc)
- Mathematics and Statistics (BSc)
- Metallurgical Engineering (BE)
- Metallurgical Engineering (BE) + Chemistry (BSc)
- Mineral Science (BSc)

Sample Enrolments
- Chemistry (BSc)
- Mathematics and Statistics (BSc)
- Metallurgical Engineering (BE)
- Metallurgical Engineering (BE) + Chemistry (BSc)
- Mineral Science (BSc)

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Welcome to Murdoch University

Congratulations on your offer of a place to study at Murdoch University.

The details included in this booklet will assist you with accepting your offer, seeking advice on your enrolment options, choosing your units and completing your enrolment online. The 7 Steps below ensure that you have the basic information you need to navigate successfully through your first enrolment experience at Murdoch. Additional enrolment assistance is available via the “New Students” website at: http://www.murdoch.edu.au/students/new/.

Students who are unable to access computer facilities due to exceptional circumstances are able to apply to receive their University correspondence via hardcopy. For further information please contact the External Studies Unit on 93602710.

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STEP 1
Accept Offer and Activate Account

☐ Go to the Murdoch Home page …
   … [http://www.murdoch.edu.au/] and click on the “New student” tab at the top of your screen. This will take you to our New Students website.

☐ Select the Accept & Activate icon

☐ Read the instructions …
   … carefully for your offer type, then click on the “New students…walk this way” icon.

   You will need your Offer Letter (Domestic students) or Confirmation of Enrolment-eCOE (International students) as this contains your Student Number.

☐ Enter your Student Number

☐ Enter your Date of Birth …
   … in the format DD/MM/YYYY (eg 12/03/1985) and click the SUBMIT button.

☐ Now you can:
   ☐ Choose to Accept, Defer or Reject your offer (domestic students only)
   ☐ Set your Murdoch Password (all students)
   ☐ Set and confirm your email address (all students)
   ☐ Select your course as offered (domestic students only)

☐ Congratulations …
   … you have accepted your place as a Murdoch student and you are now ready to select your units and complete your enrolment!
STEP 2
Research Your Options

☐ Read your Course/Major Description
The description will provide you with information about your course and major, including recommended double majors and minors and can be found later in this booklet.

☐ Review your Checklist and Unit Prerequisites
The Checklist is the structure of your course and the units you need to complete for your degree. It includes required prerequisites to help you plan the order of your units and can be found later in this booklet.

☐ Review the Sample Enrolments
The Sample Enrolment provides you with a pre-made study plan for your major. Some majors provide you with a choice of units in the requirement, so you may wish to create your own study plan. These can be found later in this booklet.

☐ Choose your units …
…you want to enrol in for the current year by using the information you have reviewed above from the Checklist and Sample Enrolment. You can find out about each unit in the Handbook online http://handbook.murdoch.edu.au/units/.

Part I units (100-level units) are taken in the first year. Most of the Part I units are worth 3 points each, this means you will be taking 8 units in your first year, being 4 units each semester.

Part II units (200-level and above units) are taken in the second or third year of study. Most Part II units are worth 4 points each, this means that you will be taking 6 Part II units in each of the 2nd and 3rd years, being 3 units each semester.

General Electives are ‘free choice’ units. You can use these units to meet the requirements of a second major or a minor. Use the Handbook online (http://handbook.murdoch.edu.au/) to help you search for these and for individual unit prerequisites.

☐ Check your Timetable
Generally you should find that the lectures for your core units and specified elective units will not clash, however some general elective units may not fit into your timetable. If this happens you may need to choose another general elective.

You can check the timetable for the units you have chosen for your first semester of enrolment to make sure they are not timetabled to run at the same time.
The quickest method of checking this is to refer to the online teaching timetable’s Nominated Units Enquiry website at: http://www.murdoch.edu.au/admin/timetables/teaching/enquiry.html.

Don’t panic if you are unsure of your choice of units. Do the best you can, and then seek help via:

- **New Student website** [http://www.murdoch.edu.au/students/new/](http://www.murdoch.edu.au/students/new/) provides more details regarding the choices of units and enrolment in units via MyInfo.
- Your **Course Advice Session(s)** where staff will be available to answer your queries about your course. See Step 5 for dates and time of your session.
- **Faculty Student Administration staff member**. You have been allocated a staff member to assist you with your enrolment queries regarding your chosen course, for contact details see Enrolment Enquires later in this booklet. Sample enrolments of popular double majors can be found on the Faculty Student Administration website [http://www.murdoch.edu.au/fsa/](http://www.murdoch.edu.au/fsa/).

- **Now you are ready to enrol …**
Complete Your Enrolment

☐ **Log in to MyMurdoch** …
   … Goto the Murdoch homepage, select “Current Students” tab at the top of the page then select “MyMurdoch” to access your portal to Murdoch’s online facilities using your Murdoch User Name (Student Number) and Murdoch Password (as per Step 1).

☐ **Log in to MyInfo**
   Click on the MyInfo tab and then click on the MyInfo Login icon and use your Murdoch User Name (Student Number) and Murdoch Password (as per Step 1). And yes, the University is working on this double login process!

ℹ️ What is MyInfo? MyInfo is the University’s student self enrolment and management system. Within MyInfo you can manage your enrolment including unit selection, unit set (majors, minors) enrolment and activity signup. You can also update your personal details (home and postal addresses, email address etc).

☐ **Go to Self Enrolment Steps**
   Within MyInfo on the left menu, click on `<Change Enrolment Details>` and then `<Self Enrolment Steps>`. Read all of the information on this page and then scroll down to the `<Self Enrolment Steps>` heading. Work your way through each of the steps.

ℹ️ Icons are used to represent the status of each Self Enrolment Step. Each step has an explanation to the process so please read each one carefully.

☐ Disclaimer – statement regarding your use of MyInfo
☐ Services – opportunity to join the Murdoch Student Guild or validate your Transperth Smartrider.
☐ Government Statistics – Government requirement to assist in forward planning.

☐ **Course Completion Date**
   Keeps the university informed of when you expect to graduate, so please keep this up to date as it is very important.

☐ **Unit Sets (Majors and Minors)**
   You will need to have at least one Unit Set recorded as your Primary Unit Set. Your Primary Unit Set must relate to the course and major you are currently enrolled under.
What are Unit Sets? This is the name given to Majors and Minors by MyInfo, and often referred to as a Course. You must have at least one primary unit set on MyInfo that matches the course you were offered (eg. Bachelor of Arts in History, with Primary Unit set of History).

- **Units**
  This is where you enrol in your individual units. Use the Search function to find the unit you want. You can also just type in the unit code of the unit you wish to enrol in. Do one unit at a time and **Save Changes** after each unit added. Remember to enrol in all of your units for the year.

- **Commonwealth Assistance Form (Domestic Students only)**
  This is a Commonwealth Government requirement. To complete this you will need your Tax File Number (TFN). If you do not have your TFN handy or have not applied for one from the Australian Taxation Office yet you can come back to this step later, however this step must be completed by the Census Date to avoid having your course cancelled as per Commonwealth Government regulations.

- **Check your Current Enrolment Details**
  When you have enrolled in all units that you intend to take for the year you are encouraged to view your current enrolment from the Current Enrolment Details menu in MyInfo. Select `<Course and Unit Details>` and then click on the course code next to the Units heading. You will need to check that all of the units that you intend to take for the year are included.

- **Unit Status shows as ENROLLED!**
  Well done, you have enrolled in your units. Please be aware that your Course Status will remain as Inactive until semester begins.

If you have any trouble getting into or navigating your way around MyMurdoch or MyInfo or have a technical issue, check out the Help link or contact the IT Service Desk (itservicedesk@murdoch.edu.au, p: 93602000 or Level 2, North Wing, Library).
What are Activities? Activities are the collective term used for lectures, tutorials, workshops, seminars and laboratories and only relate to internal units. There are no Activities for external units.

**Sign up for your Activities**
You will need to have completed your Unit Enrolment (Step 3) before you can sign up to the associated activities.

Log in to MyMurdoch and then MyInfo as per Step 3. On the left menu, click on `<Change Enrolment Details>` and then `<Activity Sign Up>`. Read all of the information as it will tell you when the Activity Sign Up function is open.

The system works on a first-in-first-served basis so you are advised to enrol in your activities as soon as possible.

Click on `<Add or Change Activities>`. Read all of the information and then scroll down to see your Unit enrolments and the available activities.

Although signing up to a Lecture activity may not be mandatory for all units, it is recommended that you do to highlight any possible clashes on your timetable. If your unit attempt status is ‘Invalid’, you will be unable to sign up for activities for that unit.

**Select Activities**
Make your selections for the different activities. It is recommended that you start with all your lectures first and save. Then choose the other associated activities for each unit, saving as you go. Be sure you also note the start week for each activity as they may not all start from Week 1 of Semester.

**View Personal Calendar**
Click on the MyUnits page of MyMurdoch to see all of your activities displayed on your Personal Calendar, in a week-by-week format. Please note that it may take 15 minutes or more for any enrolment changes to be reflected in the calendar.
Your Program Chair(s) will advise you on the requirements of your course and answer any unit selection and enrolment queries at your Course Advice Session held during Orientation Week. This session will provide you with valuable information relating to your course, units and enrolment options and it is therefore essential that you attend.

**When and Where is your Course Advice Session?**

The full Orientation Week program is available online and can be viewed at [http://www.murdoch.edu.au/students/new/orientation.html](http://www.murdoch.edu.au/students/new/orientation.html)

For further information on all events and sessions occurring during Orientation week see the timetable at: [http://www.murdoch.edu.au/students/new/orientation.html](http://www.murdoch.edu.au/students/new/orientation.html).

There are online maps of the three campuses for Murdoch at [http://www.murdoch.edu.au/index/visitors/wherearewe#campuses](http://www.murdoch.edu.au/index/visitors/wherearewe#campuses) The maps will provide details of where the course advice venues are.

If you are still unsure of your choice of units after you have read this booklet and you have attended the relevant Course Advice Session you can email or phone your Faculty Student Administration staff member with details of your query.
Go To Orientation and Start Uni

The Orientation program has been designed to meet your specific needs as a new student to Murdoch University and will help you with a smooth transition to University studies. To experience and benefit from all the advice that is available during Orientation week you would be required to attend the 2 days of Orientation scheduled for you. We encourage you to take advantage of this time to familiarise yourself with the campus, the support services available and to make friends and enjoy yourselves.

You can check the full orientation timetable (http://www.murdoch.edu.au/students/new/orientation.html) for event and Course Advice Session details.

Orientation Week will commence on Sunday 26th July. Closer to this date you will be sent detailed information on the events and session happening during Orientation Week that you need to attend.
General Electives – What are they, where can I find them? A General Elective is a unit that is not a required unit (that is not a Core Unit or Specified Elective) for your major or course. It can be selected from outside your primary area of study and may form part of a second major or minor. There is no single ‘list’ of General Electives. You can select General Electives by taking the units that make up a second major or minor or by looking at the online Handbook complete list of units available [http://handbook.murdoch.edu.au/units/](http://handbook.murdoch.edu.au/units/).

Units – Which units do I need to do and how do I know that I have enrolled in the right units? Your Checklist of Units and Prerequisites and Sample Enrolment in this booklet show you which are your required units. The Sample Enrolments for other majors are available from the Faculty Student Administration website [http://www.murdoch.edu.au/fsa/](http://www.murdoch.edu.au/fsa/).

Invalid Units – Why is my unit enrolment INVALID? Beside the invalid unit, you will find a grey button labelled ‘Why is this Invalid?’. When you click on this button, a pop-up window will display the reason that the unit is invalid. If you still require help, print off or copy down this information before contacting your Faculty Student Administration staff member.

Activities – How do I sign up & what do I do if they are full? Use Step 4 to assist you with your Activity sign up within the MyInfo part of MyMurdoch. If your chosen Activity is full, there are three options available: review your whole timetable to check if you can change to another unit, consider doing a unit externally (if available), or contact the Unit Coordinator if you have exceptional circumstances. Unit Coordinator contact details can be found by entering the unit code in the search bar on the MyUnits page of MyMurdoch.

Where can I find my credit and exemptions (Advanced Standing)? If you have notified the University that you wish to be assessed for Advanced Standing (either on your application or via contact with the Accreditation Officer), your credit and exemptions will be shown on the MyInfo part of MyMurdoch. Go to ‘Current Enrolment Details’, select <Course and Unit Details>, scroll down the list to ‘Advanced Standing’ and click on course code next to this heading (eg B1137). Allow at least 10 working days from receipt by the University of your application and supporting documentation before this information will be available on your enrolment record. Should you have any queries regarding Advanced Standing you should contact the Accreditation Officer.
Enrolment Deadlines – Internal and External units. You will be expected to enrol in all your units for the current year as soon as possible. The last date to add a unit is the end of Week 1 of Semester. For external units, the mail-out of unit materials will commence two weeks prior to the start of each Semester, so you should enrol in your external units as soon as possible. If you enrol in an external unit you should allow up to 10 days from the date you enrolled to receive your materials.

University Regulations and Rules Students should ensure they are familiar with the University’s internal legislation, including provisions specifically relevant to their studies. University Regulations and Rules - see http://www.murdoch.edu.au/admin/legsln/

How do I add or change my course, major or minor? To change your course entirely will require a course transfer which can only be applied for near the end of each semester. The relevant course transfer form, Amend Course Details, can be found at http://www.oss.murdoch.edu.au/forms/. Most second majors and minors can be added or changed under ‘Unit Sets’ in the ‘Self Enrolment Steps’ on the MyInfo part of MyMurdoch.

Email Account & Correspondence The University’s primary form of contact with students is via email. The University automatically provides you with an email address, (yourstudentnumber@student.murdoch.edu.au) and you can access this email account at: https://wwwstudent.murdoch.edu.au/mail using your Murdoch User name and Password (same as MyMurdoch). You can choose to use a different email account, for example a Yahoo account. It is essential that you keep the email address listed in the MyInfo page of MyMurdoch up to date so that you receive important communications from your lecturers and the University.

Cancellation of Courses, Minors and Units The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University.

Glossary A general summary to help you with some of the more common terms that you will come across as you plan your studies can be found on the Faculty Student Administration web page. A full list of Murdoch terminology and relevant regulation requirements can be found in the Murdoch Glossary (http://handbook.murdoch.edu.au/2008/09_glossary.pdf).
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<td><strong>School</strong></td>
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<td><strong>Credit Points for Course</strong></td>
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<td><strong>Course Codes</strong></td>
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<td><strong>Description</strong></td>
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<td><strong>Recommended Double Majors</strong></td>
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<td><strong>Mathematics and Statistics (BSc) – Course Description</strong></td>
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<tr>
<td><strong>School</strong></td>
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<td><strong>Qualifications</strong></td>
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<td><strong>Credit Points for Course</strong></td>
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<td><strong>Course Codes</strong></td>
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<td><strong>Description</strong></td>
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<td><strong>Special Requirements</strong></td>
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<tr>
<td><strong>Recommended Double Majors</strong></td>
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<td><strong>Metallurgical Engineering (BE) – Course Description</strong></td>
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<tr>
<td><strong>School</strong></td>
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<tr>
<td><strong>Qualifications</strong></td>
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<td><strong>Credit Points for Course</strong></td>
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<td><strong>Course Codes</strong></td>
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<td><strong>Description</strong></td>
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<td><strong>Special Requirements</strong></td>
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<td><strong>Professional Recognition</strong></td>
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<tr>
<td><strong>Metallurgical Engineering (BE) + Chemistry (BSc) – Course Description</strong></td>
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<tr>
<td><strong>School</strong></td>
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<td><strong>Qualifications</strong></td>
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<td><strong>Credit Points for Course</strong></td>
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<td><strong>Course Codes</strong></td>
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<td><strong>Description</strong></td>
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<td><strong>Special Requirements</strong></td>
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<td><strong>Mineral Science (BSc) – Course Description</strong></td>
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<tr>
<td><strong>School</strong></td>
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<tr>
<td>School of Chemical and Mathematical Sciences</td>
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<td><strong>Qualifications</strong></td>
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<tr>
<td>Bachelor of Science (BSc) in Mineral Science</td>
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<td><strong>Credit Points for Course</strong></td>
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<td>72</td>
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<tr>
<td><strong>Course Codes</strong></td>
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<tr>
<td>B1044</td>
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<tr>
<td><strong>Description</strong></td>
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<tr>
<td>Mineral extraction processes bridge science and engineering disciplines. Mineral scientists focus on the fundamental science of these processes. A Mineral Science degree offers the opportunity to train in interdisciplinary sciences by taking units in cognate disciplines, while gaining exposure to working in an engineering environment. This degree also caters for students with interests in mineral science, who wish to meet the requirements of double major degrees with Chemistry, Environmental Science, or other disciplines such as Law and Management.</td>
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<tr>
<td><strong>Special Requirements</strong></td>
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<tr>
<td>Students studying externally are required to attend on-campus laboratory sessions for the laboratory-based units and these usually take the form of three- to five-day intensive sessions in non-teaching breaks.</td>
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<tr>
<td><strong>Recommended Double Majors</strong></td>
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<tr>
<td>Chemistry (BSc) [double major with Mineral Science (BSc)]; Environmental Science (BEnvSc, BSc) [double major with Mineral Science (BSc)]</td>
</tr>
<tr>
<td><strong>Professional Recognition</strong></td>
</tr>
<tr>
<td>Graduates, after gaining experience in the mineral industry, are eligible for professional membership of the Australasian Institute of Mining and Metallurgy.</td>
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</table>
CHEMISTRY (BSC) CHECKLIST FOR UNITS AND PREREQUISITES 2009

School of Chemical and Mathematical Sciences
Bachelor of Science (BSc) in Chemistry

Course Structure — 72 points

Note that the information below constitutes the minimum requirements for a BSc (Chemistry). Examples of programs for students interested in pursuing chemistry with an environmental, metallurgical, biological etc. flavour can be found at http://www.cms.Murd.edu.au/areas/chemistry

Course Prerequisites

Chemistry Background
Students may need to complete one prerequisite unit depending on their background in chemistry and their final scaled score in TEE Chemistry within the past three years.

☐ TEE Chemistry with a final scaled score of 60% or more
OR
☐ PEC140 Introduction to Chemistry — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]

Students who have completed previous chemistry not stated above should consult the Program Chair for clarification of their enrolment requirements.

Mathematics Background
Students may need to complete up to two prerequisite units depending on their background in mathematics and their final scaled score in either TEE Calculus, or TEE Applicable Mathematics and Year 11 Introduction to Calculus within the past three years.

☐ TEE Calculus with a final scaled score of 55% or more
OR
☐ TEE Applicable Mathematics with a final scaled score of 55% or more and Year 11 Introduction to Calculus — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]
OR

Students who have completed previous mathematics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Physics Background
Students may need to complete one prerequisite unit depending on their background in physics and their final scaled score in TEE Physics within the past three years.

☐ TEE Physics with a final scaled score of 60% or more
OR
☐ PEC120 General Physics — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]

Students who have completed previous physics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Part I — 24 points

☐ Foundation Unit — 3 points

Select one Foundation Unit from the Foundation Units section in this Handbook.

Core Units — 12 points

Choices between alternative units here will depend on intended choices in Part II.

☐ PEC143 Chemical Laboratory Techniques — 3 pts [Murd: S1-Ext, S2-Int]
☐ PEC152 Principles of Physics — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]
☐ MAS182 Applied Mathematics — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]
OR
☐ MAS161 Calculus and Matrix Algebra — 3 pts [Murd: S2-Int, S2-Ext]
OR
☐ MAS183 Statistical Data Analysis and Databases — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]
☐ PEC144 Chemical Principles — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]

Students enrolled in a double major with BIO152 Cell Biology - 3pts or BIO103 Environmental Biology - 3pts as a required unit, may use one of them to replace PEC152 Principles of Physics - 3pts.

Students seeking RACI accreditation must complete at least two Part I subjects in Physics or Mathematics, or a combination of the two at an appropriate level. For example, successful completion of PEC152 Principles of Physics — 3 pts and MAS182 Applied Mathematics — 3 pts would be sufficient.

General Electives — 9 points

Select from any 100-level unit offered by the University, subject to individual unit prerequisites. Any Murd unit taken as a course prerequisite will be considered as a Part I General Elective.

Students are advised to consider using these points to meet the requirements of a second major or minor. Recommended double major(s): Biotechnology (BSc); Environmental Science (BEnvSc, BSc); Mathematics and Statistics (BSc); Mineral Science (BSc); Molecular Biology (BSc); Physics and Nanotechnology (BSc).

Students should also consider using these points to meet the requirements of RACI accreditation.

Part II — 48 points

Core Units — 28 points

☐ PEC247 Physical and Inorganic Chemistry — 4 pts [Murd: S1-Int, S1-Ext]
☐ PEC238 Biological Chemistry — 4 pts [Murd: S2-Int, S2-Ext]
☐ PEC240 Analytical Chemistry — 4 pts [Murd: S1-Int, S1-Ext]
☐ PEC201 Thermodynamics — 4 pts [Murd: S2-Int, S2-Ext]
☐ PEC340 Instrumental Analysis — 4 pts [Murd: S2-Int, S2-Ext]
☐ PEC347 Aquatic Chemistry — 4 pts [Murd: S1-Int, S1-Ext]
☐ PEC349 Biomolecular Design — 4 pts [Murd: S2-Int, S2-Ext]

Exemption from one of the third-year Chemistry units may be granted by the Chemistry Program Chair to students who complete a double major in another cognate discipline. Students enrolled in...
Chair.

RACI accreditation can be obtained from the Chemistry Program requirements of RACI accreditation. Details on requirements for Students should also consider using these points to meet the Molecular Biology (BSc); Physics and Nanotechnology (BSc).

Students should also consider using these points to meet the requirements of RACI accreditation. Details on requirements for RACI accreditation can be obtained from the Chemistry Program Chair.

**PREREQUISITES — CHEMISTRY (BSC)**

- **Analytical Chemistry (PEC240)**
  Prerequisites: PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles.

- **Applied Mathematics (MAS182)**
  Prerequisites: M164/MAS164 Fundamentals of Mathematics or at least a pass in the Year 11 course Introduction to Calculus together with a final scaled score of 55% or more in TEE Applicable Mathematics.

- **Aquatic Chemistry (PEC347)**
  Prerequisites: PEC247 Physical and Inorganic Chemistry or PEC240 Analytical Chemistry.

- **Biochemistry I (BIO270)**
  Prerequisites: N152/BIO152 Cell Biology and either PEC144 Chemical Principles or M114/PEC114 Chemistry for Biological Sciences or M115/PEC115 Chemistry for Environmental Science or M116/PEC116 Chemistry for Physical Sciences.

- **Biochemistry II (BIO371)**
  Prerequisites: N270/BIO270 Biochemistry I or V261/BMS261 Human and Comparative Biochemistry or ANS251 Agricultural Biochemistry.

- **Biological Chemistry (PEC238)**
  Prerequisites: PEC114 Chemistry for Biological Sciences or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles. Students with good grades in PEC115 Chemistry for Environmental Science may be admitted with the permission of the Unit Coordinator.

- **Biomolecular Design (PEC349)**
  Prerequisites: PEC238 Biological Chemistry.

- **Calculus and Matrix Algebra (MAS161)**
  Prerequisites: M182/MAS182 Applied Mathematics or a final scaled score of 55% or more in TEE Calculus or equivalent.

- **Cell Biology (BIO152)**
  Prerequisites: A thorough knowledge of Year 12 secondary level Chemistry is assumed. Students who did not achieve a final scaled score of 61% or more in TEE Chemistry within the three years immediately preceding enrolment are required to pass M140/PEC140 Introduction to Chemistry or PEC144 Chemical Principles or M114/PEC114 Chemistry for Biological Sciences or M115/PEC115 Chemistry for Environmental Science or M116/PEC116 Chemistry for Physical Sciences prior to enrolling.

- **Chemical Laboratory Techniques (PEC143)**
  Prerequisites: A thorough knowledge of Year 12 Chemistry is assumed. Students who did not achieve a final scaled score of more than 60% in TEE Chemistry within the three years immediately preceding enrolment are required to pass PEC140 Introduction to Chemistry before enrolling in this unit.

- **Chemical Principles (PEC144)**
  Prerequisites: A thorough knowledge of Year 12 secondary-level chemistry is assumed. Students who did not achieve a final scaled score of 60% or more in TEE Chemistry within the three years immediately preceding enrolment are required to pass PEC140 Introduction to Chemistry prior to enrolling. Students who are unsure of their status should consult the Chemistry Program Chair.

- **Environmental Biology (BIO103)**
  Prerequisites: Nil. Note: Ext students enrolled in BIO103 must be resident in Australia due to customs restrictions which prevent the forwarding of the practical kit to overseas destinations.

- **General Physics (PEC120)**
  Prerequisites: Nil. TEE Applicable Mathematics or MAS164 Fundamentals of Mathematics are strongly recommended and may be taken concurrently.

- **Instrumental Analysis (PEC340)**
  Prerequisites: PEC240 Analytical Chemistry.

- **Introduction to Chemistry (PEC140)**
  Prerequisites: This unit is for students with a weak background in chemistry. Students with a final scaled score of more than 60% in TEE Chemistry within the past three years may be excluded from the unit. A knowledge of basic mathematics will be assumed.

- **Physical and Inorganic Chemistry (PEC247)**
  Prerequisites: PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles; MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra or MAS183 Statistical Data Analysis and Databases.

- **Principles of Physics (PEC152)**
  Prerequisites: Concurrent enrolment in MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra; plus a final scaled score of 60% or more in TEE Physics or M120/PEC120 General Physics.

- **Thermodynamics (PEC201)**
  Prerequisites: MAS161 Calculus and Matrix Algebra or MAS182 Applied Mathematics or MAS183 Statistical Data Analysis and Databases; PEC152 Principles of Physics; PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles or enrolment in G1034 Graduate Diploma in Extractive Metallurgy.
MATHEMATICS AND STATISTICS (BSc) CHECKLIST FOR UNITS AND PREREQUISITES 2009

School of Chemical and Mathematical Sciences
Bachelor of Science (BSc) in Mathematics and Statistics

Course Structure — 72 points

Course Prerequisites

Mathematics Background

Students may need to complete up to 2 prerequisite units depending on their background in mathematics and their final scaled score in either TEE Calculus, or TEE Applicable Mathematics and Yr 11 Intro to Calculus within the past 3 yrs.

TEE Calculus with a final scaled score of 55% or more

OR

TEE Applicable Mathematics with a final scaled score of 55% or more and Yr 11 Introduction to Calculus and MAS182 Applied Mathematics — 3 pts [Murd: S1-Int, S1-Ext, S2-Int, S2-Ext]

OR


Students who have completed previous mathematics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Part I — 24 points

Foundation Unit — 3 points

Select one Foundation Unit

Core Units — 9 points

☐ MAS161 Calculus and Matrix Algebra — 3 pts
  Murd: S2-Int, S2-Ext

☐ MAS167 Computational Mathematics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

☐ MAS183 Statistical Data Analysis and Databases — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

General Electives — 12 points

Select from any 100- to 400-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using these points to meet the requirements of a second major or minor as listed under Part I General Electives.

Part II — 48 points

Core Units — 24 points

Select at least 12 points from the following:

☐ MAS305 Environmental and Biological Modelling — 4 pts
  Murd: S1-Int, S1-Ext

☐ MAS368 Time Series and Multivariate Analysis — 4 pts
  Murd: S1-Int, S1-Ext

☐ MAS374 Statistical Design and Data Analysis — 4 pts
  Murd: S2-Int, S2-Ext

☐ MAS375 Modelling and Simulation — 4 pts
  Murd: S2-Int, S2-Ext

General Electives — 24 points

Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using these points to meet the requirements of a second major or minor as listed under Part I General Electives.

Prerequisites — Mathematics and Statistics (BSc)

☐ Applied Mathematics (MAS182)
  Prerequisites: MAS164 Fundamentals of Mathematics or at least a pass in the Yr 11 course Introduction to Calculus together with a final scaled score of 55% or more in TEE Applicable Mathematics.

☐ Applied Statistics and Process Management (MAS284)
  Prerequisites: A basic understanding of simple descriptive statistics and elementary probability.

☐ Biostatistical Methods (MAS230)
  Prerequisites: MAS180 Introduction to Statistics or MAS183 Statistical Data Analysis and Databases or MAS184 Biostatistics and Information Retrieval.

☐ Calculus and Matrix Algebra (MAS161)
  Prerequisites: MAS182 Applied Mathematics or a final scaled score of 55% or more in TEE Calculus or equivalent.

☐ Computational Mathematics (MAS167)
  Prerequisites: A pass in Yr 11 Foundations of Mathematics.

☐ Environmental and Biological Modelling (MAS305)
  Prerequisites: MAS208 Mathematical Modelling or MAS261 Mathematical Methods.

☐ Mathematical Methods (MAS261)
  Prerequisites: MAS161 Calculus and Matrix Algebra or MAS208 Mathematical Modelling.

☐ Mathematical Modelling (MAS208)
  Prerequisites: MAS162 Applied Mathematics or MAS161 Calculus and Matrix Algebra.

☐ Modelling and Simulation (MAS375)
  Prerequisites: MAS161 Calculus and Matrix Algebra or MAS208 Mathematical Modelling or both MAS167 Computational Mathematics and MAS182 Applied Mathematics.

☐ Statistical Design and Data Analysis (MAS374)
  Prerequisites: MAS284 Applied Statistics and Process Management or MAS230 Biostatistical Methods or MAS278 Probability and Statistical Inference.

☐ Stochastic Models and Inference (MAS278)
  Prerequisites: MAS180 Introduction to Statistics OR MAS183 Statistical Data Analysis and Databases OR MAS184 Biostatistics and Information Retrieval OR MAS284 Applied Statistics and Process Management OR MAS230 Biostatistical Methods. In addition, students must have a calculus background equivalent to at least MAS162 Applied Mathematics.

☐ Time Series and Multivariate Analysis (MAS368)
  Prerequisites: MAS278 Probability and Statistical Inference or MAS284 Applied Statistics and Process Management or MAS230 Biostatistical Methods. Students must have a calculus background equivalent to at least MAS161 Calculus and Matrix Algebra.
Course Structure — 96 points

Course Prerequisites

Chemistry Background

Students may need to complete one prerequisite unit depending on their background in chemistry and their final scaled score in TEE Chemistry within the past three years.

TEE Chemistry with a final scaled score of 60% or more
OR
PEC140 Introduction to Chemistry — 3 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

Students who have completed previous chemistry not stated above should consult the Program Chair for clarification of their enrolment requirements.

Mathematics Background

Students may need to complete one prerequisite unit depending on their background in mathematics and based on their final scaled score in TEE Calculus, or TEE Applicable Mathematics and Year 11 Introduction to Calculus within the past three years.

TEE Applicable Mathematics with a final scaled score of 55% or more
and Year 11 Introduction to Calculus
OR
MAS164 Fundamentals of Mathematics — 3 pts
Murd: S1-Int, S1-Ext, S2-Int

Students who have completed previous mathematics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Physics Background

Students may need to complete one prerequisite unit depending on their background in physics and their final scaled score in TEE Physics within the past three years.

TEE Physics with a final scaled score of 60% or more
OR
PEC120 General Physics — 3 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

Students who have completed previous physics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Part I — 24 points

Foundation Unit — 3 points

Select one Foundation Unit from the Foundation Units section in this Handbook.

Core Units — 21 points

− MAS182 Applied Mathematics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext
− PEC144 Chemical Principles — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext
− ENG141 Design Concepts in Science and Engineering — 3 pts
  Murd: S1-Int
− MAS161 Calculus and Matrix Algebra — 3 pts
  Murd: S2-Int, S2-Ext

− EXM130 Geological Processes — 3 pts
  Murd: S2-Int, S2-Ext
− PEC152 Principles of Physics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext
− EXM131 Introduction to Extractive Metallurgy — 3 pts
  Murd: S1-Int, S1-Ext

Part II — 72 points

Core Units — 60 points

− EXM224 Principles of Unit Operations — 4 pts
  Murd: S1-Int, S1-Ext
− MAS284 Applied Statistics and Process Management — 4 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext
− PEC247 Physical and Inorganic Chemistry — 4 pts
  Murd: S1-Int, S1-Ext
− MAS208 Mathematical Modelling — 4 pts
  Murd: S2-Int, S2-Ext
− PEC201 Thermodynamics — 4 pts
  Murd: S2-Int, S2-Ext
− EXM256 Process Mineralogy — 4 pts
  Murd: S2-Int, S2-Ext
− EXM358 Pyrometallurgy — 4 pts
  Murd: S1-Int
− ENG361 Reactor Engineering — 4 pts
  Murd: S2-Int, W-Int
− EXM301 Mineral Processing I — 4 pts
  Murd: S1-Int, S1-Ext
− EXM302 Mineral Processing II — 4 pts
  Murd: S2-Int, S2-Ext
− EXM357 Hydrometallurgy — 4 pts
  Murd: S2-Int
− ENG267 Control Systems and Process Dynamics — 4 pts
  Murd: S2-Int, W-Int
− ENG428 Engineering Design — 4 pts
  Murd: S1-Int, S2-Int
OR
− EXM435 Advanced Topics in Extractive Metallurgy — 4 pts
  Murd: Y-Int
− ENG453 Engineering Law, Management and Ethics — 4 pts
  Murd: S1-Int, SUM-Int
− EXM355 Mineral Resources and Environment — 4 pts
  Murd: S1-Int

Specified Electives — 12 points

Select one of the following:

− ENG450 Engineering Internship — 12 pts
  Murd: H-Int, S1-Int, S2-Int, SUM-Int, WU3-Int, Y-Int
− ENG460 Engineering Thesis — 12 pts
  Murd: H-Int, S1-Int, S2-Int, SUM-Int, WU3-Int, Y-Int
− EXM436 Process Design Project/Thesis — 12 pts
  Murd: Y-Int

PREREQUISITES — METALLURGICAL ENGINEERING

Advanced Topics in Extractive Metallurgy (EXM435)
Prerequisites: M301/EXM301 Mineral Processing I, M302/EXM302
Mineral Processing II, M357/EXM357 Hydrometallurgy, M358/EXM358
Pyrometallurgy, or by permission of the Unit Coordinator.
Prerequisites: Completion of all required third year Engineering units.

Design Concepts in Science and Engineering (ENG141)
Prerequisites: Nil.

Engineering Design (ENG428)
Prerequisites: Nil.

Engineering Internship (ENG450)
Prerequisites: Nil.

Engineering Law, Management and Ethics (ENG453)
Prerequisites: Nil.

Engineering Thesis (ENG460)
Prerequisites: Nil.

Geological Processes (EXM130)
Prerequisites: Nil.

Hydrometallurgy (EXM357)
Prerequisites: Nil.

Introduction to Chemistry (PEC140)
Prerequisites: Nil.

Introduction to Extractive Metallurgy (EXM131)
Prerequisites: Nil.

Mathematical Modelling (MAS208)
Prerequisites: Nil.

Mineral Processing I (EXM301)
Prerequisites: Nil.

Mineral Processing II (EXM302)
Prerequisites: Nil.

Mineral Resources and Environment (EXM355)
Prerequisites: Nil.

Physical and Inorganic Chemistry (PEC247)
Prerequisites: Nil.

Principles of Physics (PEC152)
Prerequisites: Nil.

Principles of Unit Operations (EXM224)
Prerequisites: Nil.

Process Design Project/Thesis (EXM436)
Prerequisites: Nil.

Process Mineralogy (EXM256)
Prerequisites: Nil.

Pyrometallurgy (EXM358)
Prerequisites: Nil.

Thermodynamics (PEC201)
Prerequisites: Nil.

Applied Mathematics (MAS182)
Prerequisites: Nil.

Applied Statistics and Process Management (MAS284)
Prerequisites: Nil.

Calculus and Matrix Algebra (MAS161)
Prerequisites: Nil.

Chemical Principles (PEC144)
Prerequisites: Nil.

Control Systems and Process Dynamics (ENG267)
Prerequisites: Nil.

Fundamentals of Mathematics (MAS164)
Prerequisites: Nil.

General Physics (PEC120)
Prerequisites: Nil.

Geological Processes within the past three years may be excluded from the unit. A knowledge of basic mathematics will be assumed.

Hydrometallurgy is assumed. Students who did not achieve a final scaled score of 55% or more in TEE Chemistry within the past three years may be excluded from the unit. A knowledge of basic mathematics will be assumed.

Introduction to Extractive Metallurgy, and M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra or MAS183 Statistical Data Analysis and Databases.

Introduction to Geology (EXM130)
Prerequisites: Nil.

Principles of Physics (PEC152)
Prerequisites: Nil.

Principles of Unit Operations (EXM224)
Prerequisites: Nil.

Process Design Project/Thesis (EXM436)
Prerequisites: Nil.

Process Mineralogy (EXM256)
Prerequisites: Nil.

Pyrometallurgy (EXM358)
Prerequisites: Nil.

Thermodynamics (PEC201)
Prerequisites: Nil.
METALLURGICAL ENGINEERING (BE) + CHEMISTRY (BSC) CHECKLIST FOR UNITS AND PREREQUISITES 2009

School of Chemical and Mathematical Sciences
Bachelor of Engineering (BE) in Metallurgical Engineering + Bachelor of Science (BSc) in Chemistry

Course Structure — 120 points

Course Prerequisites

Chemistry Background
Students may need to complete one prerequisite unit depending on their background in chemistry and their final scaled score in TEE Chemistry within the past three years.

TEE Chemistry with a final scaled score of 60% or more
OR
PEC140 Introduction to Chemistry — 3 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

Students who have completed previous chemistry not stated above should consult the Program Chair for clarification of their enrolment requirements.

Mathematics Background

Students may need to complete one prerequisite unit depending on their background in mathematics and their final scaled score in either TEE Calculus, or TEE Applicable Mathematics and Year 11 Introduction to Calculus within the past three years.

TEE Applicable Mathematics with a final scaled score of 55% or more and Year 11 Introduction to Calculus
OR
MAS164 Fundamentals of Mathematics — 3 pts
Murd: S1-Int, S1-Ext, S2-Int

Students who have completed previous mathematics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Physics Background

Students may need to complete one prerequisite unit depending on their background in physics and their final scaled score in TEE Physics within the past three years.

TEE Physics with a final scaled score of 60% or more
OR
PEC120 General Physics — 3 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

Students who have completed previous physics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Part I — 27 points

Foundation Unit — 3 points
Select one Foundation Unit from the Foundation Units section in this Handbook.

Core Units — 24 points

EXM131 Introduction to Extractive Metallurgy — 3 pts
Murd: S1-Int, S1-Ext

PEC144 Chemical Principles — 3 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

MAS182 Applied Mathematics — 3 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

EXM130 Geological Processes — 3 pts Murd: S2-Int, S2-Ext

Part II — 93 points

Core Units — 88 points

EXM224 Principles of Unit Operations — 4 pts
Murd: S1-Int, S1-Ext

PEC247 Physical and Inorganic Chemistry — 4 pts
Murd: S1-Int, S1-Ext

PEC240 Analytical Chemistry — 4 pts Murd: S1-Int, S1-Ext

PEC201 Thermodynamics — 4 pts Murd: S2-Int, S2-Ext

EXM256 Process Mineralogy — 4 pts Murd: S2-Int, S2-Ext

MAS208 Mathematical Modelling — 4 pts Murd: S2-Int, S2-Ext

EXM301 Mineral Processing I — 4 pts Murd: S1-Int, S1-Ext

MAS284 Applied Statistics and Process Management — 4 pts
Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

PEC340 Instrumental Analysis — 4 pts Murd: S2-Int, S2-Ext

EXM302 Mineral Processing II — 4 pts Murd: S2-Int, S2-Ext

PEC238 Biological Chemistry — 4 pts Murd: S2-Int, S2-Ext

EXM358 Pyrometallurgy — 4 pts Murd: S1-Int

PEC347 Aquatic Chemistry — 4 pts Murd: S1-Int, S1-Ext

ENG267 Control Systems and Process Dynamics — 4 pts
Murd: S2-Int, W-Int

EXM357 Hydrometallurgy — 4 pts Murd: S2-Int

EXM355 Mineral Resources and Environment — 4 pts Murd: S1-Int

EXM435 Advanced Topics in Extractive Metallurgy — 4 pts Murd: Y-Int

ENG453 Engineering Law, Management and Ethics — 4 pts
Murd: S1-Int, SUM-Int


ENG361 Reactor Engineering — 4 pts NA 2009

General Electives — 5 points
Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites.

Students are advised to consider using these points to meet the requirements of a second major or minor.

PREREQUISITES — METALLURGICAL ENGINEERING (BE) + CHEMISTRY (BSC)

Advanced Topics in Extractive Metallurgy (EXM435)
Prerequisites: M301/EXM301 Mineral Processing I, M302/EXM302 Mineral Processing II, M357/EXM357 Hydrometallurgy, M358/EXM358 Pyrometallurgy.
Analytical Chemistry (PEC240)
Prerequisites: PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles.

Applied Mathematics (MAS182)
Prerequisites: M164/MAS164 Fundamentals of Mathematics or at least a pass in the Year 11 course Introduction to Calculus together with a final scaled score of 55% or more in TEE Applicable Mathematics.

Applied Statistics and Process Management (MAS284)
Prerequisites: A basic understanding of simple descriptive statistics and elementary probability.

Aquatic Chemistry (PEC347)
Prerequisites: PEC247 Physical and Inorganic Chemistry or PEC240 Analytical Chemistry.

Biological Chemistry (PEC238)
Prerequisites: PEC114 Chemistry for Biological Sciences or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles. Students with good grades in PEC115 Chemistry for Environmental Science may be admitted with the permission of the Unit Coordinator.

Chemical Laboratory Techniques (PEC143)
Prerequisites: A thorough knowledge of Year 12 Chemistry is assumed. Students who did not achieve a final scaled score of more than 60% in TEE Chemistry within the three years immediately preceding enrolment are required to pass PEC140 Introduction to Chemistry before enrolling in this unit.

Chemical Principles (PEC144)
Prerequisites: A thorough knowledge of Year 12 secondary-level chemistry is assumed. Students who did not achieve a final scaled score of 60% or more in TEE Chemistry within the three years immediately preceding enrolment are required to pass PEC140 Introduction to Chemistry before enrolling in this unit. Students who are unsure of their status should consult the Chemistry Program Chair.

Control Systems and Process Dynamics (ENG267)
Prerequisites: ENG109 Computing for Scientists and Engineers; PEC152 Principles of Physics; MAS161 Calculus and Matrix Algebra or co-requisite MAS208 Mathematical Modelling.

Engineering Law, Management and Ethics (ENG453)
Prerequisites: Completion of 40 or more points at Part II.

General Physics (PEC120)
Prerequisites: Nil. TEE Applicable Mathematics or MAS164 Fundamentals of Mathematics are strongly recommended and may be taken concurrently.

Geological Processes (EXM130)
Prerequisites: No prior knowledge of geology is required. Knowledge of physical sciences at senior high school level is assumed.

Hydrometallurgy (EXM357)
Prerequisites: M201/PEC201 Chemical Thermodynamics.

Instrumental Analysis (PEC340)
Prerequisites: PEC240 Analytical Chemistry.

Introduction to Chemistry (PEC140)
Prerequisites: This unit is for students with a weak background in chemistry. Students with a final scaled score of more than 60% in TEE Chemistry within the past three years may be excluded from the unit. A knowledge of basic mathematics will be assumed.

Introduction to Extractive Metallurgy (EXM131)
Prerequisites: Nil. Knowledge of physical sciences at senior high school level is assumed.

Mathematical Modelling (MAS208)
Prerequisites: M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra.

Mineral Processing I (EXM301)
Prerequisites: M131/EXM131 Introduction to Extractive Metallurgy, and M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra.

Mineral Processing II (EXM302)
Prerequisites: M131/EXM131 Introduction to Extractive Metallurgy, and M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra.

Mineral Resources and Environment (EXM355)
Prerequisites: M130/EXM130 Geological Processes.

Physical and Inorganic Chemistry (PEC247)
Prerequisites: PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles; MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra or MAS183 Statistical Data Analysis and Databases.

Principles of Physics (PEC152)
Prerequisites: Concurrent enrolment in MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra; plus a final scaled score of 60% or more in TEE Physics or M120/PEC120 General Physics.

Principles of Unit Operations (EXM224)
Prerequisites: M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra and M152/PEC152 Principles of Physics or high school physics.

Process Design Project/Thesis (EXM436)

Process Mineralogy (EXM256)
Prerequisites: M130/EXM130 Geological Processes.

Pyrometallurgy (EXM358)
Prerequisites: M201/PEC201 Chemical Thermodynamics.

Reactor Engineering (ENG361)
Prerequisites: EXM224 Principles of Unit Operations in Mineral Processing OR ENG241 Principles of Process Engineering.

Thermodynamics (PEC201)
Prerequisites: MAS161 Calculus and Matrix Algebra or MAS182 Applied Mathematics or MAS183 Statistical Data Analysis and Databases; PEC152 Principles of Physics; PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles.
Course Prerequisites — 72 points

Chemistry Background

☐ Students may need to complete one prerequisite unit depending on their background in chemistry and their final scaled score in TEE Chemistry within the past three years.

TEE Chemistry with a final scaled score of 60% or more
OR
PEC140 Introduction to Chemistry — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

Students who have completed previous chemistry not stated above should consult the Program Chair for clarification of their enrolment requirements.

Mathematics Background

☐ Students may need to complete one prerequisite unit depending on their background in mathematics and their final scaled score in either TEE Calculus, or TEE Applicable Mathematics and Year 11 Introduction to Calculus within the past three years.

TEE Applicable Mathematics with a final scaled score of 55% or more
OR
MAS164 Fundamentals of Mathematics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int

Students who have completed previous mathematics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Physics Background

☐ Students may need to complete one prerequisite unit depending on their background in physics and their final scaled score in TEE Physics within the past three years.

TEE Physics with a final scaled score of 60% or more
OR
PEC120 General Physics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

Students who have completed previous physics not stated above should consult the Program Chair for clarification of their enrolment requirements.

Part I — 24 points

☐ Foundation Unit — 3 points

Select one Foundation Unit from the Foundation Units section in this Handbook.

Core Units — 18 points

☐ PEC144 Chemical Principles — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

☐ MAS182 Applied Mathematics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

☐ MAS161 Calculus and Matrix Algebra — 3 pts
  Murd: S2-Int, S2-Ext

☐ EXM130 Geological Processes — 3 pts
  Murd: S2-Int, S2-Ext

☐ EXM131 Introduction to Extractive Metallurgy — 3 pts
  Murd: S1-Int, S1-Ext

☐ PEC152 Principles of Physics — 3 pts
  Murd: S1-Int, S1-Ext, S2-Int, S2-Ext

General Electives — 3 points

Select from any 100-level units offered by the University, subject to individual unit prerequisites. Any Murd unit taken as a course prerequisite will be considered as a Part I General Elective.

Students are advised to consider using these points to meet the requirements of a second major or minor. Recommended double major(s): Chemistry (BSc) [double major with Mineral Science (BSc)]; Environmental Science (BEnvSc, BSc) [double major with Mineral Science (BSc)].

Part II — 48 points

Core Units — 32 points

Year 2

☐ EXM224 Principles of Unit Operations — 4 pts
  Murd: S1-Int, S1-Ext

☐ PEC247 Physical and Inorganic Chemistry — 4 pts
  Murd: S1-Int, S1-Ext

☐ PEC201 Thermodynamics — 4 pts
  Murd: S2-Int, S2-Ext

☐ EXM256 Process Mineralogy — 4 pts
  Murd: S2-Int, S2-Ext

Year 3

☐ EXM301 Mineral Processing I — 4 pts
  Murd: S1-Int, S1-Ext

☐ EXM302 Mineral Processing II — 4 pts
  Murd: S2-Int, S2-Ext

☐ EXM357 Hydrometallurgy — 4 pts
  Murd: S2-Int

☐ EXM358 Pyrometallurgy — 4 pts
  Murd: S1-Int

General Electives — 16 points

Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites.

Students are advised to consider using these points to meet the requirements of a second major or minor. Recommended double major(s): Chemistry (BSc) [double major with Mineral Science (BSc)]; Environmental Science (BEnvSc, BSc) [double major with Mineral Science (BSc)].

PREREQUISITES — MINERAL SCIENCE (BSc)

☐ Applied Mathematics (MAS182)

Prerequisites: M164/MAS164 Fundamentals of Mathematics or at least a pass in the Year 11 course Introduction to Calculus together with a final scaled score of 55% or more in TEE Applicable Mathematics.

☐ Calculus and Matrix Algebra (MAS161)

Prerequisites: M182/MAS182 Applied Mathematics or a final scaled score of 55% or more in TEE Calculus or equivalent.
Chemical Principles (PEC144)
Prerequisites: A thorough knowledge of Year 12 secondary-level chemistry is assumed. Students who did not achieve a final scaled score of 60% or more in TEE Chemistry within the three years immediately preceding enrolment are required to pass PEC140 Introduction to Chemistry prior to enrolling. Students who are unsure of their status should consult the Chemistry Program Chair.

Fundamentals of Mathematics (MAS164)
Prerequisites: Nil.

General Physics (PEC120)
Prerequisites: Nil. TEE Applicable Mathematics or MAS164 Fundamentals of Mathematics are strongly recommended and may be taken concurrently.

Geological Processes (EXM130)
Prerequisites: No prior knowledge of geology is required. Knowledge of physical sciences at senior high school level is assumed.

Hydrometallurgy (EXM357)
Prerequisites: M201/PEC201 Chemical Thermodynamics, or enrolment in G1034 Graduate Diploma in Extractive Metallurgy.

Introduction to Chemistry (PEC140)
Prerequisites: This unit is for students with a weak background in chemistry. Students with a final scaled score of more than 60% in TEE Chemistry within the past three years may be excluded from the unit. A knowledge of basic mathematics will be assumed.

Introduction to Extractive Metallurgy (EXM131)
Prerequisites: Nil. Knowledge of physical sciences at senior high school level is assumed.

Mineral Processing I (EXM301)
Prerequisites: M131/EXM131 Introduction to Extractive Metallurgy and M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra OR enrolment in G1034 Graduate Diploma in Extractive Metallurgy.

Mineral Processing II (EXM302)
Prerequisites: M131/EXM131 Introduction to Extractive Metallurgy and M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra OR enrolment in G1034 Graduate Diploma in Extractive Metallurgy.

Physical and Inorganic Chemistry (PEC247)
Prerequisites: PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles; MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra or MAS183 Statistical Data Analysis and Databases.

Principles of Physics (PEC152)
Prerequisites: Concurrent enrolment in MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra; plus a final scaled score of 60% or more in TEE Physics or M120/PEC120 General Physics.

Principles of Unit Operations (EXM224)
Prerequisites: M182/MAS182 Applied Mathematics or M161/MAS161 Calculus and Matrix Algebra and M152/PEC152 Principles of Physics or high school physics, or enrolment in G1034 Graduate Diploma in Extractive Metallurgy.

Process Mineralogy (EXM256)
Prerequisites: M130/EXM130 Geological Processes or equivalent, or approval of the Unit Coordinator, or enrolment in G1034 Graduate Diploma in Extractive Metallurgy.

Pyrometallurgy (EXM358)
Prerequisites: M201/PEC201 Chemical Thermodynamics, or enrolment in G1034 Graduate Diploma in Extractive Metallurgy.

Thermodynamics (PEC201)
Prerequisites: MAS161 Calculus and Matrix Algebra or MAS182 Applied Mathematics or MAS183 Statistical Data Analysis and Databases; PEC152 Principles of Physics; PEC114 Chemistry for Biological Sciences or PEC115 Chemistry for Environmental Science or PEC116 Chemistry for Physical Sciences or PEC144 Chemical Principles or enrolment in G1034 Graduate Diploma in Extractive Metallurgy.
Must be read in conjunction with full course structure, unit prerequisites and enrolment options on checklist

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Unit (see list below)</td>
<td>3pts</td>
</tr>
<tr>
<td>PEC143 Chemical Laboratory Techniques</td>
<td>3pts</td>
</tr>
<tr>
<td>PEC144 Chemical Principles</td>
<td>3pts</td>
</tr>
<tr>
<td>Part I Unit (General Elective)</td>
<td>3pts</td>
</tr>
<tr>
<td><strong>12pts</strong></td>
<td>12pts</td>
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</tbody>
</table>

Year 1

| PEC152 Principles of Physics | 3pts |
| MAS182 Applied Mathematics | 3pts |
| **3pts**                   | 3pts |
| OR                         | 3pts |
| MAS183 Statistical Data Analysis and Databases | 3pts |
| Part I Unit (General Elective) | 3pts |
| Part I Unit (General Elective) | 3pts |
| **12pts**                  | 12pts |

Year 2

| PEC247 Physical and Inorganic Chemistry | 4pts |
| PEC240 Analytical Chemistry | 4pts |
| Part II Unit (General Elective) | 4pts |
| **12pts**                   | 12pts |

Year 3

| PEC347 Aquatic Chemistry | 4pts |
| Part II Unit (General Elective) | 4pts |
| Part II Unit (General Elective) | 4pts |
| **12pts**                 | 12pts |

**NB:** MAS161 Calculus and Matrix Algebra can be completed instead of MAS182 OR MAS183, however this unit is available only in semester 2

*Foundation Unit:* Select one unit from the following:

<table>
<thead>
<tr>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDN105 Structure, Thought and Reality</td>
</tr>
<tr>
<td>FDN115 Interactions of Society and Technology</td>
</tr>
<tr>
<td>FDN150 Reinventing Australia</td>
</tr>
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</table>
Mathematics and Statistics (BSc) – 2009
Mid Year 2009
Sample Enrolment – 72 points

Must be read in conjunction with full course structure, unit prerequisites and enrolment options on checklist
It is recommended that students contact their program chair for assistance with their study plan

<table>
<thead>
<tr>
<th>Semester 1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Foundation Unit (see list below)</td>
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</tr>
<tr>
<td>MAS161 Calculus and Matrix Algebra</td>
<td>3pts</td>
</tr>
<tr>
<td>Part I unit (General Elective)</td>
<td>3pts</td>
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<tr>
<td>Part I unit (General Elective)</td>
<td>3pts</td>
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<tr>
<td><strong>Year 1</strong></td>
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</tr>
<tr>
<td>MAS167 Computational Mathematics</td>
<td>3pts</td>
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<tr>
<td>MAS183 Statistical Data Analysis &amp; Databases</td>
<td>3pts</td>
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<td>Part I unit (General Elective)</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
<tr>
<td><strong>Year 2</strong></td>
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</tr>
<tr>
<td>200 Level Unit (see list below)</td>
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<tr>
<td>Part II Unit (General Elective)</td>
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<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Year 3</strong></td>
<td></td>
</tr>
<tr>
<td>300 Level Unit (see list below)</td>
<td>4pts</td>
</tr>
<tr>
<td>300 Level Unit (see list below)</td>
<td>4pts</td>
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<td><strong>Total</strong></td>
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**Foundation Unit:** Select one unit from the following:

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<thead>
<tr>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>FDN105 Structure, Thought and Reality</td>
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<tr>
<td>FDN115 Interactions of Society and Technology</td>
</tr>
<tr>
<td>FDN150 Reinventing Australia</td>
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</table>

<table>
<thead>
<tr>
<th>200 Level Units – Mathematics &amp; Statistics</th>
<th>300 Level Units – Mathematics &amp; Statistics</th>
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<tbody>
<tr>
<td>MAS208 Mathematical Modelling</td>
<td>MAS305 Environmental and Biological Modelling</td>
</tr>
<tr>
<td>Murd: S2-Int, S2-Ext</td>
<td>Murd: S1-Int, S1-Ext</td>
</tr>
<tr>
<td>MAS261 Mathematical Methods</td>
<td>MAS368 Time Series and Multivariate Analysis</td>
</tr>
<tr>
<td>Murd: S1-Int, S1-Ext</td>
<td>Murd: S1-Int, S1-Ext</td>
</tr>
<tr>
<td>MAS278 Stochastic Models and Inference</td>
<td>MAS374 Statistical Design and Data Analysis</td>
</tr>
<tr>
<td>Murd: S1-Int, S1-Ext</td>
<td>Murd: S2-Int, S2-Ext</td>
</tr>
<tr>
<td>Either</td>
<td>MAS375 Modelling and Simulation</td>
</tr>
<tr>
<td>MAS230 Biostatistical Methods</td>
<td>Murd: S2-Int, S2-Ext</td>
</tr>
<tr>
<td>Murd: S2-Int, S2-Ext</td>
<td>OR</td>
</tr>
<tr>
<td>OR</td>
<td>MAS284 Applied Statistics and Process Management</td>
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<tr>
<td>MAS284 Applied Statistics and Process Management</td>
<td>Murd: S1-Int, S1-Ext, S2-Int, S2-Ext</td>
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# Metallurgical Engineering (BE) – 2009

## Mid Year 2009

Sample Enrolment – 96 points

Must be read in conjunction with full course structure, unit prerequisites and enrolment options on checklist

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>Foundation Unit (see list below)</td>
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<tr>
<td>EXM130 Geological Processes</td>
<td>3pts</td>
</tr>
<tr>
<td>PEC144 Chemical Principles</td>
<td>3pts</td>
</tr>
<tr>
<td>MAS161 Calculus and Matrix Algebra</td>
<td>3pts</td>
</tr>
<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
</tr>
<tr>
<td>PEC152 Principles of Physics</td>
<td>3pts</td>
</tr>
<tr>
<td>EXM131 Introduction to Extractive Metallurgy</td>
<td>3pts</td>
</tr>
<tr>
<td>ENG141 Design Concepts in Science and Engineering</td>
<td>3pts</td>
</tr>
<tr>
<td>MAS182 Applied Mathematics</td>
<td>3pts</td>
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<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
</tr>
<tr>
<td>Year 1</td>
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</tr>
<tr>
<td>EXM224 Principles of Unit Operations</td>
<td>4pts</td>
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<tr>
<td>PEC247 Physical and Inorganic Chemistry</td>
<td>4pts</td>
</tr>
<tr>
<td>MAS284 Applied Statistics and Process Management</td>
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<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
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<tr>
<td>Year 2</td>
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</tr>
<tr>
<td>EXM301 Mineral Processing I</td>
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</tr>
<tr>
<td>EXM358 Pyrometallurgy</td>
<td>4pts</td>
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<tr>
<td>ENG361 Reactor Engineering (NA2009)</td>
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<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
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<tr>
<td>Year 3</td>
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</tr>
<tr>
<td>EXM355 Mineral Resources and Environment</td>
<td>4pts</td>
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<tr>
<td>ENG428 Engineering Design</td>
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<td>OR</td>
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</tr>
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<td>EXM435 Advanced Topics in Extractive Metallurgy (Y)</td>
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<tr>
<td>ENG453 Engineering Law, Management and Ethics</td>
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<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
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<tr>
<td>Year 4</td>
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<tr>
<td>EXM355 Mineral Resources and Environment</td>
<td>4pts</td>
</tr>
<tr>
<td>ENG428 Engineering Design</td>
<td>4pts</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>EXM435 Advanced Topics in Extractive Metallurgy (Y)</td>
<td></td>
</tr>
<tr>
<td>ENG453 Engineering Law, Management and Ethics</td>
<td>4pts</td>
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<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
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</table>

## Foundation Unit:
Select one unit from the following:

<table>
<thead>
<tr>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>FDN105 Structure, Thought and Reality</td>
</tr>
<tr>
<td>FDN115 Interactions of Society and Technology</td>
</tr>
<tr>
<td>FDN150 Reinventing Australia</td>
</tr>
</tbody>
</table>
Metallurgical Engineering (BE) + Chemistry (BSc) – 2009
Mid Year 2009

Sample Enrolment – 120 points

Must be read in conjunction with full course structure, unit prerequisites and enrolment options on checklist

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation Unit (see list below)</strong></td>
<td>3pts</td>
</tr>
<tr>
<td>EXM130 Geological Processes</td>
<td>3pts</td>
</tr>
<tr>
<td>PEC143 Chemical Laboratory Techniques</td>
<td>3pts</td>
</tr>
<tr>
<td>MAS161 Calculus and Matrix Algebra</td>
<td>3pts</td>
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<td><strong>12pts</strong></td>
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| Year 1 | | Semester 2 |
|--------|-----------|
| PEC152 Principles of Physics | 3pts |
| EXM131 Introduction to Extractive Metallurgy | 3pts |
| PEC144 Chemical Principles | 3pts |
| MAS182 Applied Mathematics | 3pts |
| **12pts** | **12pts** |

| Year 2 | | |
|--------|-----------|
| ENG141 Design Concepts in Science and Engineering | 3pts |
| EXM224 Principles of Unit Operations | 4pts |
| PEC240 Analytical Chemistry | 4pts |
| **11pts** | **12pts** |

| Year 3 | | |
|--------|-----------|
| PEC247 Physical and Inorganic Chemistry | 4pts |
| EXM301 Mineral Processing I | 4pts |
| MAS284 Applied Statistics and Process Management | 4pts |
| **12pts** | **12pts** |

| Year 4 | | |
|--------|-----------|
| EXM358 Pyrometallurgy | 4pts |
| PEC347 Aquatic Chemistry | 4pts |
| ENG361 Reactor Engineering (NA2009) | 4pts |
| **12pts** | **12pts** |

| Year 5 | | |
|--------|-----------|
| EXM435 Advanced Topics in Extractive Metallurgy (Y) | 4pts |
| EXM436 Process Design Project/Thesis (Y) | 4pts |
| ENG453 Engineering Law, Management and Ethics | 4pts |
| Part II Unit (General Elective) | 5pts |
| **12pts** | **13pts** |

**Foundation Unit:** Select one unit from the following:

<table>
<thead>
<tr>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDN105 Structure, Thought and Reality</td>
</tr>
<tr>
<td>FDN115 Interactions of Society and Technology</td>
</tr>
<tr>
<td>FDN150 Reinventing Australia</td>
</tr>
</tbody>
</table>
# Mineral Science - (BSc) 2009
## Mid Year 2009

Sample Enrolment

Must be read in conjunction with full course structure, unit prerequisites and enrolment options on checklist

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation Unit (see list below)</strong></td>
<td>3pts</td>
</tr>
<tr>
<td>MAS161 Calculus and Matrix Algebra</td>
<td>3pts</td>
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<tr>
<td>EXM130 Geological Processes</td>
<td>3pts</td>
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<tr>
<td>Part I Unit (General Elective)</td>
<td>3pts</td>
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<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
</tr>
<tr>
<td>PEC152 Principles of Physics</td>
<td>3pts</td>
</tr>
<tr>
<td>EXM131 Introduction to Extractive Metallurgy</td>
<td>3pts</td>
</tr>
<tr>
<td>MAS182 Applied Mathematics</td>
<td>3pts</td>
</tr>
<tr>
<td>PEC144 Chemical Principles</td>
<td>3pts</td>
</tr>
<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
</tr>
<tr>
<td>EXM224 Principles of Unit Operations</td>
<td>4pts</td>
</tr>
<tr>
<td>PEC247 Physical and Inorganic Chemistry</td>
<td>4pts</td>
</tr>
<tr>
<td>Part II Unit (General Elective)</td>
<td>4pts</td>
</tr>
<tr>
<td><strong>12pts</strong></td>
<td><strong>12pts</strong></td>
</tr>
<tr>
<td>Year 3</td>
<td></td>
</tr>
<tr>
<td>EXM301 Mineral Processing I</td>
<td>4pts</td>
</tr>
<tr>
<td>EXM358 Pyrometallurgy</td>
<td>4pts</td>
</tr>
<tr>
<td>Part II Unit (General Elective)</td>
<td>4pts</td>
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<tr>
<td><strong>12pts</strong></td>
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</table>

**Foundation Unit:** Select one unit from the following:

<table>
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<tr>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDN105 Structure, Thought and Reality</td>
</tr>
<tr>
<td>FDN115 Interactions of Society and Technology</td>
</tr>
<tr>
<td>FDN150 Reinventing Australia</td>
</tr>
</tbody>
</table>
All Murdoch students are required to complete one Foundation Unit unless they have been awarded Advanced Standing including an exemption for it. Check the teaching timetable for most up-to-date day, time and room location of each Foundation Unit: (http://www.murdoch.edu.au/admin/timetables/teaching/). All foundation units have Lectures: 2 hours per week; workshops/tutorials: 2 hours per week. Below are the foundation units on offer for semester 2.

FDN105 Structure, Thought and Reality
Murdoch: S1-internal, S1-external, Y-external
Unit Coordinator: Dr Ian Cook, i.cook@murdoch.edu.au,
Tel: 9360 6117, Education and Humanities Room 3.040
In this unit you will be asked to think differently about reality. Rather than taking reality to be natural or objective, we will treat it as social or subjective. When we think of reality in this way, we start to understand "truth" and "knowledge" in a very different light. After considering reasons to treat reality as social or subjective, we apply this view of reality to topics including: human sexuality, childhood, death, virtual reality, God and the war on terror.

FDN115 Interactions of Society and Technology
Murdoch: S1-internal, S1-external, S2-internal, S2-external
Peel: S1-internal, S2-internal, Rockingham: S1-internal, S2-internal
Unit Coordinator – Ms Martina Muller, m.muller@murdoch.edu.au
Tel: 9360 2955, Science and Computing Room 2.011
Society's constantly evolving interrelationship with technology has fundamentally changed our perception of ourselves and society. It is increasingly important for people to have a broad understanding of social, historical, ethical, economic and environmental factors that interconnect societal development with the nature of technology. This unit will provide students with an understanding of these issues.
Topics: histories of western culture and sciences, the nature of democracy, life cycle analysis and sustainability, political structures, cities, reproductive technologies, privacy, medicine, design and innovation.

FDN150 Reinventing Australia
Murdoch: S1-internal, S1-external, S2-internal, S2-external, Rockingham: S1-internal
Unit Coordinator – Associate Professor Michael Sturma, m.sturma@murdoch.edu.au
Tel: 9360 2857, Social Sciences Room 2.016
As Australia is in some sense being 'reinvented' by globalisation, new technology and other forces for change, we consider just what 'Australia' is and possibilities for shaping its future. Topics: contemporary issues such as the environment, Aboriginal rights, the family, multiculturalism, and terrorism. Our aim is to identify and understand some of the salient features of Australian society.
### Personal Study Plan

Unit Sets: ________________________________________________________________

_________________________________________________________________________

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
</tr>
</thead>
<tbody>
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<tr>
<td>2</td>
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<td></td>
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</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Program Chair & Academic Contact Details

Chemistry: Dr Leonie Hughes l.hughes@murdoch.edu.au
08 9360 2886 Physical Sciences Room 2.009

Mathematics and Statistics: Dr Duncan Farrow d.farrow@murdoch.edu.au
08 9360 2819 Science and Computing Room 3.004

Metallurgical Engineering: Dr Leonie Hughes l.hughes@murdoch.edu.au
08 9360 2886 Physical Sciences Room 2.009

Mineral Science: Dr Leonie Hughes l.hughes@murdoch.edu.au
08 9360 2886 Physical Sciences Room 2.009

Correct at time of printing. For the most up-to-date list of Academic contacts, please consult: http://www.murdoch.edu.au/contacts/academic/.

Enrolment Enquiries

Enrolment advice will be provided at the Course Advice Sessions during Orientation Week. If you have attended one of these sessions and still have enrolment queries, please contact your Faculty Student Administration staff member.

Annette Connolly, Student Administrative Officer
a.connolly@murdoch.edu.au
Education and Humanities Building Room 2.002
p: 08 9360 6268
http://www.murdoch.edu.au/fsa/

The New Students website (http://www.murdoch.edu.au/students/new/) will also assist you with links to enrolment procedures, sample enrolments, including unit selection for common double majors, Fees, Orientation and Services and Facilities.
# Handy Contacts and Websites

<table>
<thead>
<tr>
<th>Need help with:</th>
<th>Contact</th>
<th>Email</th>
<th>Phone (+618)</th>
<th>Location Murdoch Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer/MyInfo</td>
<td>IT Service Desk</td>
<td><a href="mailto:itservicedesk@murdoch.edu.au">itservicedesk@murdoch.edu.au</a></td>
<td>9360 2000</td>
<td>Library (north) Level 2</td>
</tr>
<tr>
<td>Enrolment – units</td>
<td>Faculty Student Administration</td>
<td><a href="mailto:fsa@murdoch.edu.au">fsa@murdoch.edu.au</a></td>
<td>9360 2420</td>
<td>EH 2.002</td>
</tr>
<tr>
<td>Student ID card</td>
<td>IT Service Desk</td>
<td><a href="mailto:itservicedesk@murdoch.edu.au">itservicedesk@murdoch.edu.au</a></td>
<td>9360 2000</td>
<td>Library (north) Level 2</td>
</tr>
<tr>
<td>Parking Permits</td>
<td>Student Service Centre</td>
<td><a href="mailto:parking@murdoch.edu.au">parking@murdoch.edu.au</a></td>
<td>9360 6127</td>
<td>Chancellery 2.020</td>
</tr>
<tr>
<td>HECS-Help and Fees</td>
<td>Student Service Centre</td>
<td><a href="mailto:fees@murdoch.edu.au">fees@murdoch.edu.au</a></td>
<td>9360 6127</td>
<td>Chancellery 2.020</td>
</tr>
<tr>
<td>Books/Unit materials</td>
<td>Bookshop</td>
<td><a href="mailto:bookshop@murdoch.edu.au">bookshop@murdoch.edu.au</a></td>
<td>9360 2540</td>
<td>Refectory 2.051</td>
</tr>
<tr>
<td>International Students</td>
<td>Murdoch International</td>
<td><a href="mailto:internat@murdoch.edu.au">internat@murdoch.edu.au</a></td>
<td>9360 6770</td>
<td>Senate 1.001</td>
</tr>
<tr>
<td>Advanced Standing – Credit &amp; Exemptions</td>
<td>Mr Allan Wong</td>
<td><a href="mailto:A.Wong@murdoch.edu.au">A.Wong@murdoch.edu.au</a></td>
<td>9360 6352</td>
<td>Chancellery 2.027</td>
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<tr>
<td></td>
<td>Mr John Tan</td>
<td><a href="mailto:J.Tan@murdoch.edu.au">J.Tan@murdoch.edu.au</a></td>
<td>9360 6010</td>
<td>Senate 1.001</td>
</tr>
<tr>
<td>First Year Experience Coordinator</td>
<td>Tammy Geddes</td>
<td><a href="mailto:firstyear@murdoch.edu.au">firstyear@murdoch.edu.au</a></td>
<td>9360 2519</td>
<td>Library 3.001B</td>
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</tbody>
</table>

New Student home page http://www.murdoch.edu.au/students/new/
Dates and Deadlines http://www.oss.murdoch.edu.au/timetables/
Faculty Student Administration http://www.murdoch.edu.au/fsa
Guild of Students http://guild.murdoch.edu.au
Library http://wwwlib.murdoch.edu.au/
Murdoch International http://www.international.murdoch.edu.au
MyMurdoch (online enrolment) http://my.murdoch.edu.au
Parking and Transport http://www.murdoch.edu.au/index/students/P&T
Teaching timetable http://www.murdoch.edu.au/admin/timetables/teaching/
Unit coordinator details http://www.murdoch.edu.au/index/units