<u>B1317 Bachelor of Science, Mineral Science – 72cps</u> <u>Sample Course plan 2019, Semester 1 entry</u>

Major Prerequisites

Mathematics Background

Students may need to complete one prerequisite unit depending on their background in mathematics with either a C grade in Mathematics Specialist ATAR (or Mathematics: Specialist 3C/3D) or a final scaled score of 60 percent or more in Mathematics Methods ATAR (or Mathematics 3C/3D). Students without this background will need to complete,

MAS164 Fundamentals of Mathematics - 3 points MURDOCH: S1-internal, S1-external, S2-internal, S2-external

Physics Background

Students may need to complete one prerequisite unit depending on their background in physics OR a final scaled score in Physics 3A/3B (or equivalent) of 60 percent or more within the past three years. Students without this background will need to complete,

PEN120 General Physics - 3 points

MURDOCH: S1-internal, S1-external, S2-internal, S2-external

Chemistry Background

Students may need to complete one prerequisite unit depending on their background in chemistry OR a final scaled score in Chemistry 3A/3B or Chemistry ATAR of 50 percent or more within the past three years. Students without this background will need to complete,

CHE140 Fundamentals of Chemistry - 3 points

MURDOCH: S1-internal, S1-external, S2-internal, S2-external

If you need MAS164, CHE140 and/or PEN120, your course may take longer. Please contact your Academic Chair or Student Advisor to discuss your options, http://our.murdoch.edu.au/Student-life/My-First-Year/Student-Life/Student-Advisors/#engineering

| | Semester 1 | | Semester 2 | |
|--------|---|---------------------------|---|---------------------------|
| Year 1 | BSC100 Building Blocks for Science MAS182 Applied Mathematics PEN152 Principles of Physics ENG193 Introduction to the Minerals Industry | 3pts 3pts 3pts 3pts 12pts | BSC150 What is Science? CHE144 Foundations of Chemistry MAS161 Calculus and Matrix Algebra Option | 3pts 3pts 3pts 3pts 12pts |
| Year 2 | Research Skills Unit (Choose from list below*) ENG202 Engineering Thermodynamics ENG205 Process Mineralogy ENG224 Principles of Unit Operations | 3pts 3pts 3pts 3pts 12pts | Option Option Option University-wide breadth unit | 3pts 3pts 3pts 3pts 12pts |

Students should note that if unit prerequisites are required, this may extend the duration of your course.

Disclaimer: This course plan is a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as per the online Handbook.

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| Year 3 | Research Skills Unit (Choose from list | 3pts | ENG326 Hydrometallurgy | 3pts |
|--------|---|-------|------------------------------|--------------|
| | below*) Option | 3pts | Option Option | 3pts 3pts |
| | ENG324 Principles of Mineral Processing | 3pts | University-wide breadth unit | 3pts |
| | ENG325 Pyrometallurgy | 3pts | | 12pts |
| | | 12pts | | |

*Research Skills Units. Select from the following:

ENG255 Chemical Process Kinetics MAS221 Mathematical Modelling

BEN200 Scientific Method in Engineering ENG299 Control Systems and Process Dynamics

BEN300 Innovation and Ethics in Engineering MAS354 Modelling and Simulation

MAS351 Environmental and Biological Modelling ENG336 Engineering Finance, Management and Law

Every semester, if you change anything in your course, or you fail units, please make an appointment with your Academic Chair to discuss your choices.

http://www.murdoch.edu.au/contacts/academic/division/school/School of Engineering and Information Technology/

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