



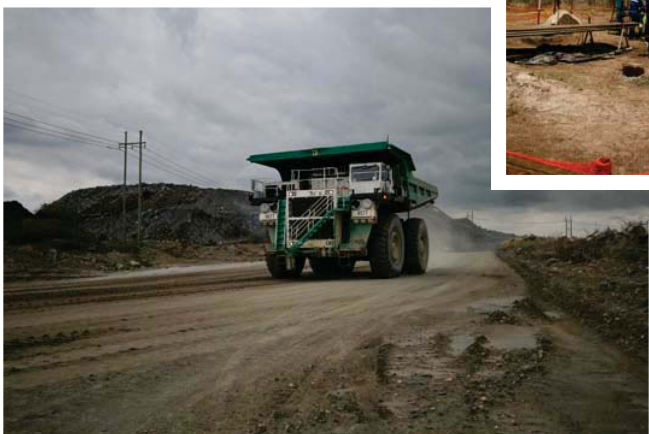
Minerals
Council of
Australia

MTEC

MINERALS TERTIARY
EDUCATION COUNCIL

MASTER OF SCIENCE ORE DEPOSIT GEOLOGY

**COURSEWORK
PROGRAM 2012**





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OVERVIEW

The coursework Masters program is designed for geoscientists who want to gain up to date knowledge and skills in economic geology and mineral exploration. The course structure is flexible with the choice between full or part-time study, coursework plus project or coursework only options, three home institutions (University of Western Australia, University of Tasmania and James Cook University) and 16 coursework units offered across four institutions. There are no formal exams, a variety of entry paths (BSc plus a minimum 2 years relevant experience, BSc (Hons) or Graduate Diploma of Science).

The course at UWA is part of the Minerals Geoscience Masters (MGM) program and is supported by the Minerals Council of Australia (MCA). The program is run jointly between the Centre for Exploration Targeting (CET, a joint centre between the University of Western Australia and Curtin University), the Centre for Ore Deposit Research (CODES, University of Tasmania), the School of Earth and Environmental Sciences (EES, James Cook University) and the Western Australian School of Mines (WASM) and the Department of Mineral & Energy Economics (DMEE) at the Curtin Graduate School of Business (CGSB).

COURSE STRUCTURE OPTIONS

The following information on course structure is applicable to **Australian citizens** and **permanent residences** and can be taken **full-time** or **part-time**.

OPTION 1

Two year program commencing with a Graduate Diploma of Science (Geology) in the first year (full time) and a one-year Master of Science (Ore Deposit Geology) course in the second year (full time) based on four coursework units and a 24-point research project (which is similar to an Honours size thesis).

OPTION 2

Eight units of course work with at least two coursework units undertaken at UWA (part-time only). The other units are completed at UWA and/or at the other participating universities (see list below).

The course requires that students attend some units at other universities that participate in the National Minerals Geoscience Masters (MGM) program. Note that additional costs will be incurred as a result of domestic travel (see "fees" below).

OPTION 3

One-year full time Master of Science course based on four coursework units (two completed at UWA) and a research project (similar to an Honours size thesis). UWA requires the student to contact a prospective academic to supervise them for the thesis portion of the course. This is not negotiable and must be done prior to commencement.



RESEARCH PROJECT INFORMATION

The research project can be based on some aspect of the student's current work and can take the form of a literature review, a research paper or involve field work, data processing and/or analysis. The research project should be aimed at between 65-80 pages of text plus figures/tables and the student must enrol and complete the following two Mineral Geoscience Project units within a one year period (MING5511 & MING5512).

Format should be in the form of an internal professional report or as per a specified relevant scientific journal. Ultimately, this paper is of the calibre to publish.



ASSESSMENT

There are no formal written exams except for students seeking exemption from units or who initially fail a unit. The coursework units are assessed through assignments and/or reports. Further information regarding assessment for each unit should be directed to the websites on the following pages or the unit coordinators. If submitting a research project report there are some formal university protocols which can be discussed with your supervisor and the MSc coursework coordinator. Some pre-reading and assignments may be required before the commencement of the unit. At the University of Western Australia, students who have elected to write a research project are encouraged to submit a summary to their supervisor(s) of their next chapter after each dissertation unit is completed.



INTERNATIONAL STUDENTS OPTIONS

There are three course options for international students depending on their qualifications and visa status (see below). Option 1 & 3 are available to international student visa holders and requires full time on-campus study. This requires the completion of a 24-point dissertation, two UWA coursework units and two additional units (selected from the options on page 11 of this handbook) to be undertaken at one of the cooperating universities.

VISA INFORMATION

For visa information and regulations please contact the Department of Immigration www.immi.gov.au/. For additional information regarding entry into UWA, English requirements and assistance on campus, please contact the International Centre and/or the MSc coordinator at the opted home university to discuss.

OPTION 1

Two year program commencing with a Graduate Diploma of Science (Geology) in the first year and a one-year Master of Science (Ore Deposit Geology) course in the second year based on three coursework units and a research project (which is similar to an Honours size thesis).

OPTION 2

8 coursework units.

The course requires that students attend some units at other universities that participate in the National Minerals Geoscience Masters program. Note that additional costs will be incurred as a result of domestic travel (see “fees” below).

OPTION 3

One-year Master of Science (Ore Deposit Geology) course based on four coursework units and a research project (worth 50% of total assessment). UWA requires the student to contact a prospective academic to supervise them for the thesis portion of the course. This is not negotiable.

PARTICIPATING INSTITUTIONS

Students enrolling in the Masters Course work program must select one of the three home institutions:

- University of Western Australia, Perth WA
- University of Tasmania, Hobart TAS
- James Cook University, Townsville QLD

Course work units are available at all of the above listed universities. The student must enrol in 4 or 8 coursework units depending on the course option selected as described above. The University of Western Australia students are required to undertake a minimum of 2 coursework units at UWA irrespective of the course option.

Curtin University of Technology also offer units within the program but enrolment into Curtin as a home institution is not currently available as part of the MGM.

Each of the participating universities offers up to six units, with each unit being available every second year, with the exception of Curtin University which offers all units every year. All units are generally of two weeks duration. Field-based courses may be longer and require weekend stays.



FEES

Students should note that fee structures differ between universities and are subject to change.

LOCAL STUDENTS

The up front fees are ~\$2, 300 per unit for the course overall (this cost is only valid if all units are taken at UWA). This does not include additional costs and different unit fee structures between participating universities. Commonwealth support is available for Australian Citizens and NZ residents within Australia during the MSc Ore Deposit course. This option reduces your out-of-pocket expenses to \$595 per unit (UWA only). Please direct your enquiries to student administration at your home university for fee information.

There are also additional costs associated with field-based units to cover accommodation, meals and other miscellaneous expenses. All fees are borne by the student and must be paid before the commencement of the unit.

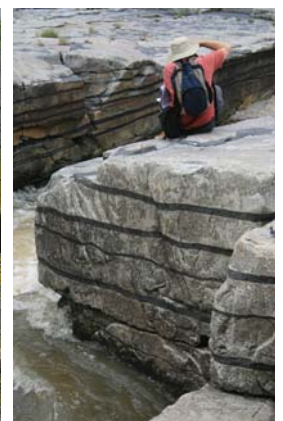
Additional costs are incurred if a UWA student undertakes a unit at a participating university. Flights, accommodation, meals and additional fees are borne by the student (example below).

INTERNATIONAL STUDENTS

The fee for international students is \$29,930 AUD per year for the Graduate Diploma of Science (Geology) and \$29,930 AUD per year for the Master of Science (Ore Deposit Geology). This requires the student to pay for ½ of the total fee (i.e. \$14,250) up front to UWA. This fee structure is based on all 8 units being completed at UWA. However, if the full-time student wishes to undertake units at an associated university, the student pays UWA only for the units undertaken at UWA and then is responsible for the tuition fee at the host university. This must be discussed with this department before commencement of the unit. If the student is on a student visa there is also an additional cost for annual health cover of ~\$370.00 per year of study.

As individual student costs may vary, please access the International student's website <http://www.international.uwa.edu.au/> and liaise with a student officer to ensure the correct fees. The combined Graduate Diploma and Masters program is required for students who do not have either a BSc (Hons) degree from the University of Western Australia (or equivalent) or a UWA BSc degree (or equivalent) plus two years of relevant industry experience. The Graduate Diploma program is administered through the Faculty of Natural and Agricultural Sciences and all enquiries should be directed to Vickie Falcetta at the main offices on Vickie.Falcetta@uwa.edu.au.

International students should also visit www.international.uwa.edu.au/studentnet/esos which gives more information and links about the student environment, course fees and refund policy, support services, and schooling obligations for dependent children.





DURATION

Local students only.

Minimum period is 12 months (full-time) . The maximum period is four years (part-time).

Note: Many students that are in full-time employment (FIFO), will enrol part-time and elect to do 8 units over a 4 year period (part time). All units are block release and run across 2 weeks (sometimes including weekends).

ENROLMENT

Students are required to choose one of the three participating universities (University of Western Australia, James Cook University or University of Tasmania) as a home institution at which to enrol. Once enrolled at one university (home) a cross-institutional enrolment is required for study at host (other) universities. All cross-institutional enrolments must be approved by the host and home university prior to commencement of the unit. Cross institutional enrolment forms must be submitted in hard copy only.

At least one unit is required for a valid enrolment each year in the MSc course at UWA. If it is not possible to complete at least one unit, Approved Leave must be taken otherwise the enrolment is lapsed. Lapsed students are required to apply for re-admission in order to re-commence at a later date, incurring possible additional fees and resubmission of documentation.

Closing Date for New Enrolments

(Following information applies to UWA only)

NEW ENROLMENTS

Local students: any time of year

International students: apply by 31 August for following year (please contact coordinator)

RE-ENROLMENTS FOR 2012

Semester 1: On-line (20 December 2011).

Semester 2: On-line (June 2012 — to be confirmed).

Re-enrolments after this period will incur a financial penalty depending on the level of intakes (i.e. second or third round of intakes) and require liaising with UWA enrolments officers to permit online enrolments.

ADMISSION REQUIREMENTS

A relevant bachelor's degree

with honours from UWA, or equivalent as recognised by the Faculty,

A relevant bachelor's degree from UWA

or equivalent as recognised by the Faculty, and a relevant graduate diploma of UWA or equivalent as recognised by the University or equivalent as recognised by the Faculty

A bachelor's degree in a relevant subject area

from UWA and three (3) years' relevant work experience or equivalent as recognised by the Faculty.



OVERVIEW OF UNITS IN THE MINERALS GEOSCIENCE MASTERS PROGRAM

MGM 2012 TIMETABLE

NAME OF UNIT	HOME UNI. UNIT CODE	UWA UNIT CODE	START	FINISH
JAMES COOK UNIVERSITY				
Business and Financial Management in the Minerals Industry	EA5024	ENRL8544	6 Feb-2012	17 Feb-2012
Advanced Field Training in Deformed and Altered Rocks	EA5027	ENRL8545	Jun-2013	Jun-2013
Advanced Techniques in Mining and Exploration Geology	EA5028	ENRL8546	Apr-2013	Apr-2013
UNIVERSITY OF TASMANIA				
Ore Deposits of South America	KEA848	ENRL8534	Mar - 2013	Mar - 2013
Ore Deposit Geochemistry, Hydrology and Geochronology	KEA845	ENRL8533	Jun - 2013	Jun - 2013
Geometallurgy	KEA702	ENRL8529	19 Mar-2012	30 Mar-2012
Exploration in Brownfield Terrains	KEA847	ENRL8535	4 June-2012	15 Jun-2012
Ore Deposit Studies and Exploration Models	KEA841	ENRL8532	22 Oct-2012	2 Nov-2012
Volcanology and Mineralisation in Volcanic Terrains	KEA843	ENRL8531	15 Apr-2012	29 Apr-2012
UNIVERSITY OF WESTERN AUSTRALIA				
Exploration Targeting	MING5502	MING5502	July - 2013	July - 2013
Advanced Ore Deposits	MING5504	MING5504	Nov - 2013	Nov - 2013
Ore Deposit Field Excursion	MING5503	MING5503	3 Sept 2012	16 Sept 2012
Applied Structural Geology	MING5501	MING5501	23 July 2012	3 August 2012
CURTIN UNIVERSITY - GRADUATE SCHOOL OF BUSINESS/WEST AUSTRALIAN SCHOOL OF MINES				
Natural Resources Economics 601**	10939	ENRL8538	13 Feb-2012	18 Feb-2012
Natural Resources Economics 601**	10939	ENRL8538	28 May-2012	2-June-2012
Natural Resources Economics 601#	10939	ENRL8538	27 Aug-2012	20-Nov-2012
Mineral Finance and Project Evaluation 601**	312811	ENRL8549	30 Jan-2012	4 Feb-2012
Mineral Finance and Project Evaluation 601**	312811	ENRL8549	14 May-2012	19 May-2012
Mineral Finance and Project Evaluation 601**	312811	ENRL8549	24 Sept-2012	29 Sept-2012
Resource Cost and Capital 602**	313412	ENRL8541	2 July-2012	11 July-2012
Resource Sector Finance 602**	306031	ENRL8542	5 Mar-2012	14 Mar-2012
Resource Sector Finance 602**	306031	ENRL8542	15 Oct-2012	24 Oct-2012

** Online portion begins prior to commencement - check timetables at <http://gsb.curtin.edu.au/gsb/current-students/timetables/>

Online ONLY

COURSEWORK UNIT DESCRIPTIONS



THE UNIVERSITY OF
WESTERN AUSTRALIA

(CRICOS provider code: 00126G)

Location	University of Western Australia, Centre for Exploration Targeting
Dates	November 2013
Content	Experts interpret the current state of research and exploration in a series of mineral systems and exploration-oriented workshops on the following deposit types; orogenic and intrusion-related gold, iron-oxide copper gold, Carlin-style gold and Cu-Mo-Au porphyry, regional-scale metallogenic features, nickel-sulphide, uranium and iron-ore. This unit is available to industry participants as individual modules.
Presenters	Prof. T. Campbell McCuaig, Dr John Miller, Dr Marco Fiorentini, Prof. Steffen Hagemann and other CET staff and nationally recognized specialists from industry and academia. Presenters are to be confirmed closer to the date of commencement.
Location	University of Western Australia, Centre for Exploration Targeting
Dates	July 2013
Content	This course focuses on identifying the challenges in predicting the location of mineralisation at a variety of scales using both empirical and conceptual techniques; how to translate an understanding of mineral systems into exploration targeting models; and how to collate and visualise available geoscience datasets to generate and rank targets from mine to regional scale using computer-based methods. Topics include the business of exploration targeting; remote and proximal sensing; mapping of primary, alteration and regolith mineralogy with remote (HyMap and ASTER) and proximal (PIMA, HyLogger) spectral sensors; applied geophysics in exploration targeting; an introduction to Geographical Information Systems (GIS); creation of derived GIS layers to represent exploration criteria; spatial data analysis to quantitatively test exploration criteria; methods to combine data sets into mineral prospectivity maps (e.g. weights of evidence, fuzzy logic and neural networks); creation of 3D models from the integration of numerical modelling to simulate physical and chemical processes in tectonics and ore deposition, and case studies showing examples of best practice in exploration targeting in 3D.
Presenters	Dr Carsten Laukamp (CSIRO Exploration & Mining), Dr. Tom Cudahy (CSIRO Exploration & Mining), Dr Arianne Ford (CET), Prof T. Campbell McCuaig (CET), Dr John Miller (CET), Dr Alok Porwal (CET) and other national and international experts. (Note: presenters may change depending on availability)



ORE DEPOSIT FIELD EXCURSION (MING5503)

Location	South Africa
Dates	3-16 September 2012
Content	<p>South Africa is one of the best endowed mineral-resource regions on Earth with an exciting and diverse range of deposit environments. During this field excursion to South Africa participants will examine world-class deposit styles not common in Australia. Mine tours and visits to outcrops help to reinforce theoretical knowledge and develop an understanding of geological concepts that are applicable to a wide variety of deposit types. Experience in diverse geological terrains and deposits are very helpful for participants who will engage in mineral exploration in the future. Areas visited on the excursion include Witwatersrand gold-uranium, Bushveld PGE-Cr-Ti/V (at Rustenburg Platinum Mine; Merensky Reef, UG2 Chromitite), Phalaborwa Cu-P-bearing Carbonatite, Vergenoeg magnetite-fluorite-fayalite REE breccia pipe and kimberlite-hosted diamonds at the Premier diamond mine. Other geological areas visited include Pilansberg Alkaline Complex, Buffalo fluorite mine, Sandsloot platinum mine on the Platreef of the Bushveld Complex, UG1 chromitite seams at Dwars River and the Transvaal Sequence at Bourke's Luck potholes.</p> <p>This unit is available to industry participants.</p>
Presenters	Dr Marco Fiorentini, CET staff and local deposit experts.
Projected Fee for 2012	In addition to the standard enrolment fee there is an added fee of approximately \$7000 (subject to change) which will cover the international flight and accommodation, food and additional travel costs while in South Africa. For all other participants including industry participants: \$10, 500. This fee will be finalised closer to commencement in 2012.

APPLIED STRUCTURAL GEOLOGY (MING5501)

Location	University of Western Australia, Centre for Exploration Targeting and field trip around Kalgoorlie-Kambalda area.
Dates	23 July- 3 Aug 2012
Content	<p>The 5-day classroom-based course is an introduction to the principles of structural geology based on real deposits with emphasis on mineral exploration from mine to regional scale and the structural controls on hydrothermal ore deposits. Topics covered include: the visualization of geological features in three dimensions, analysis of folded rocks, faults and fault systems, regional structural and tectonic environments, tectonic styles and their geophysical expression, and the analysis of structures in drill core. The 7-day field excursion in the Kalgoorlie Terrane of the Yilgarn Craton, Western Australia, involves a series of field exercises to demonstrate: 1) what structural features to map and how to recognise them in the field, 2) show how to integrate field structural observations with regional geological and geophysical data sets, 3) how to approach mine-scale mapping; and 4) how to integrate structural field observations with an understanding of mineral systems in mine to regional scale exploration. This unit is available to industry participants as individual modules.</p>
Presenters	Prof T. Campbell McCuaig (CET, UWA), Dr John Miller (CET, UWA), Dr. Steven Micklethwaite (CET, UWA), CET staff, and recognized specialists from industry and academia.
Projected Fee for 2012	In addition to the standard enrolment fee there is an added fee of approximately \$4000 for field related costs. This fee will be finalised closer to commencement in 2012.

UNIVERSITY OF WESTERN AUSTRALIA

For further information regarding any of the above UWA unit rules and assessment requirements, please follow the link:

<http://www.science.uwa.edu.au/courses/postgrad/coursework/master-sci-odg>

(CRICOS provider code: 00117J)

ADVANCED TECHNIQUES IN MINING AND EXPLORATION GEOLOGY (EA5028)

Location James Cook University, School of Earth & Environmental Studies (EES)

Dates April 2013

Content The series of topics addressed in this course is designed to advance understanding of exploration and mining technologies and how to integrate hands-on geological first principles with advanced databases at a variety of scales for optimum value. Course modules explore the analysis of ore body geometry and architecture based on surface and subsurface mapping; drill core data; controlling rock structures; ore associations and alteration patterns. Prospectivity analysis relevant to exploration.

Student enquires to MGM Administrator Judy Botting mgm@jcu.edu.au or egru@jcu.edu.au. Also available as an Industry Short Course. www.jcu.edu.au/egru.

Presenters Dr Tom Blenkinsop

ADVANCED FIELD TRAINING (EA5027)

Location Based at Roxmere Field station, Eastern Mt Isa Block, north-western Queensland.

Dates June 2013

Content Intensive 8-day course as two modules available separately. This course is designed to provide geoscientists with state-of-the-art exploration-related field skills in complexly deformed and altered rocks, with an emphasis on structural geology, recognition of alteration patterns, ground truthing geophysical and geochemical datasets, and prospectivity mapping. The course will emphasise the integration of structural, paragenetic, textural, geochemical and geophysical techniques in unravelling patterns of fluid flow, alteration and mineralisation. The course will be based in the Mt Isa Block.

Student enquires to MGM Administrator Judy Botting mgm@jcu.edu.au. Also available as an Industry Short Course.

Presenters Dr Tom Blenkinsop and Dr Mike Rubenach

Fee Domestic/international student fees cover course payment including full catering, meals and one night's motel accommodation in Cloncurry or Mt Isa as necessitated by the course structure. Participants should arrange their own 4WD transport and bring a sleeping bag. A place on a JCU 4WD vehicle can be negotiated at extra cost.



BUSINESS AND FINANCIAL MANAGEMENT IN THE MINERALS INDUSTRY (EA5024(6))

Location James Cook University, Economic Geology Research Unit (EGRU).

Dates 6 - 17 February 2012

Content This 11 day course is an introduction to general, technical and financial management for professionals in the minerals sector with special emphasis on exploration management. Focuses of this course include management of people and teams, operations management and planning, economic and financial management, and consideration of the global and local commercial and political context of the resources industry. In addition, the course will cover the following topics; Mining in the national economy, managing people, teams, communication, negotiation and leadership, discounted cash flow analysis, valuation of mines and prospects, understanding corporate financial statements, using DCF and financial statements in risk and sensitivity analysis, financing methods, operations management using exploration as example, planning, developing business strategies, selection of business entity, raising capital, IPO's, legal issues and management, business management in context of local and global commercial and political context of resources industry, case histories.

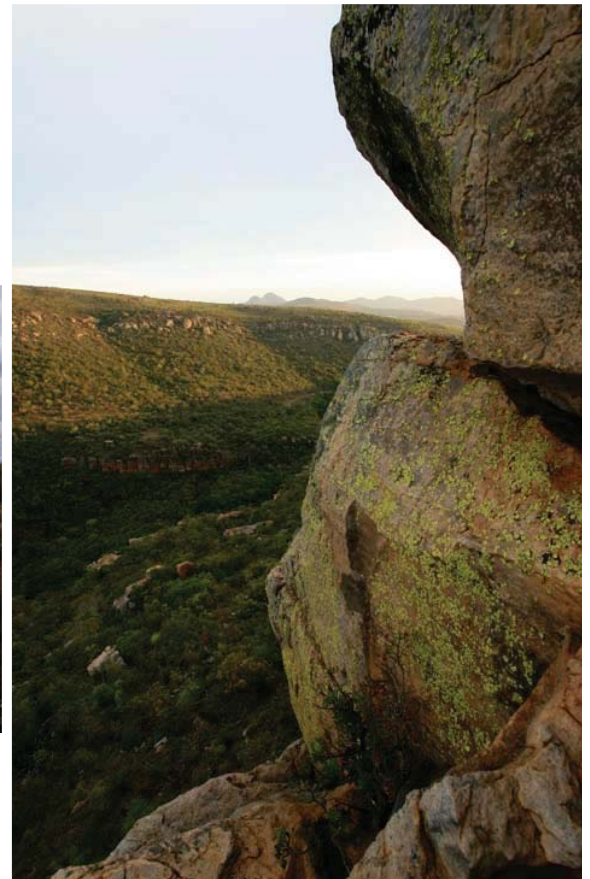
Student enquires to MGM Administrator Anne Stanley mgm@jcu.edu.au. Also available as an Industry Short Course.

Presenters Mr Andy White

JAMES COOK UNIVERSITY

For further information regarding any of the above JCU units please follow the link:

http://www-public.jcu.edu.au/courses/course_info/index.htm?userText=100404-





(CRICOS provider code: 00586B)

Location	Hobart (CODES)
Dates	June 2013
Content	This course covers a variety of geochemical and geochronological techniques used to interpret environments of ore formation and processes of ore genesis, and discusses the implications of these datasets for mineral exploration. Topics include Ar-Ar, U-Pb and Re-Os geochronology, whole rock and trace element chemistry of igneous rocks, sulphide trace element chemistry, stable and radiogenic isotopes, fluid inclusions and hydrothermal geochemistry.
Presenters	Associate Prof. David Cooke plus CODES staff and selected academic and industry lecturers.
Research interests	Fluid-rock interaction and hydrothermal geochemistry
Location	Chile, South America
Dates	March 2013
Content	An exciting field-based course in the Andes covering the major ore deposit styles including porphyry Cu-Mo, high sulfidation epithermal gold, low sulfidation epithermal gold and iron-Oxide Cu-Au. Mines visited include El Teniente (the world's largest underground mine) and Chuquicamata, the world's largest open pit. A series of presentations by researchers and exploration geologists working in South America will address the geology, tectonic-setting and important exploration criteria for each deposit style.
Presenters	Prof. David Cooke, Prof. J. Bruce Gemmell and industry geologists working in South America.
Location	Field based, New Zealand and western Tasmania
Dates	15-29 Apr 2012
Content	Intensive program of fieldwork in New Zealand (8 full days) and Tasmania (3 full days) plus some lectures. This course provides an introduction to the processes and products of different eruption styles, contrasts in scale and structure of volcanoes, identification of key volcanic facies associations and interpretation of facies variations. Mineralisation and alteration processes related to hydrothermal systems in subaerial and submarine volcanic environments and implications for mineral exploration are included. This course is a field based unit with trips to the North Island of New Zealand to examine modern volcanic and geothermal systems and a trip to the West Coast of Tasmania to examine the well mineralised and altered, Cambrian Mt Read Volcanic Belt
Presenters	Prof. Jocelyn McPhie and Prof. J. Bruce Gemmell
Fee 2012	The additional field fee for Master students is \$3500 and approximately \$6000 for all other participants. Course fees include some meals, accommodation, field transport, entry fees (Tarawera, Waiotapu, Waimangu), course notes and field guide. Travel to and from New Zealand and accommodation in Hobart is each participant's responsibility. Note that a valid passport is required for entry into Australia on return from New Zealand. For further information contact Robert Scott at CODES.

ORE DEPOSIT STUDIES AND EXPLORATION MODELS (KEA841)

Location Hobart (CODES)

Dates 22 Oct - 2 Nov 2012

Content Ore Deposit Models and Exploration Strategies is an up-to-date synopsis of ore-deposit types and their characteristics. Important features which relate to their genesis and exploration will be discussed and exploration models will be presented for each style. Deposit styles covered include VHMS, Broken Hill Type, Proterozoic Cu-Au, Porphyry Cu-Mo-Au, Skarn Deposits, Sediment Hosted Massive Sulphides and Epithermal Au-Ag.

Presenters CODES staff and selected academic and industry geoscientists.

EXPLORATION IN BROWNFIELD TERRAINS (KEA847)

Location Hobart (CODES)

Dates 4-15 Jun 2012

Content The compilation of large datasets that are common in areas of significant previous exploration can present a challenge for any geologist. This course is a lab- and field-based unit that looks at exploration in and around mine sites where there is often abundant data. This course will cover GIS applications, and the interpretation of geochemical and geophysical data at various scales. This information will be enhanced by practical exercises involving the integration of multiple datasets from world-class mineralised districts. A field excursion to the west coast of Tasmania will examine real life exploration issues at several mine sites.

Presenters Dr. Mike Roach, Dr Jun Cowen (PrestoLogic) and a series of senior exploration geologists

GEOMETALLURGY (KEA702)

Location Hobart (CODES)

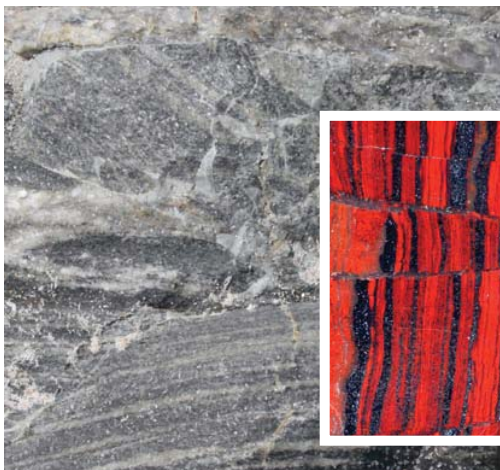
Dates 19-30 Mar 2012

Content Geometallurgy involves a quantified and comprehensive approach to ore characterisation in terms of critical processing attributes. These include blasting, crushing, grinding, liberation, recovery and environmental management. Key outcomes of improved geometallurgical knowledge are improved forecasting, reduced technical risk, enhanced economic optimisation of mineral production, and improved sustainability. The process requires communication between mining engineers, metallurgists and geologists. The key aim of this unit is to enhance communication between these disciplines in a mining environment. The second aim is to introduce a range of techniques that will enhance the information that geologists produce in the mine environment that are relevant to mining engineers and metallurgists.

Presenters TBC

UNIVERSITY OF TASMANIA

For further information regarding any of the above U Tas units please follow the link: <http://courses.utas.edu.au/>



(CRICOS provider code: 00301J)

NATURAL RESOURCE ECONOMICS (FULL UNIT) (10939) #

Location	Curtin Graduate School of Business - 78 Murray St Perth WA
Dates	13-18 Feb**, 28 May - 2 Jun** & 27 Aug - 20 Nov*, 2012 (online program precedes these dates**; online only*)
Content	This unit has 32 contact hours taught over an eight day intensive course. The course contains such things as; the study of mineral economics, review of economic concepts and theories, the framework for the analysis of natural resources, economic rent, renewable resources, environmental resources, non-renewable resources, minerals and economic development, mineral abundance-curse or blessing, mineral policy and mineral taxation, mining and the environment, mining and sustainable development.
Presenters	Assoc. Prof. Daniel J. Packey

MINERAL FINANCE AND PROJECT EVALUATION 601(FULL UNIT) (312811) #

Location	Curtin Graduate School of Business- 78 Murray St Perth WA
Dates	30 Jan - 4 Feb, 14 - 19 May & 24-29 Sept, 2012 (students may be required to undertake pre-reading)
Content	The program is an intensive 9-day course with classes between the hours of 8.30-16.00. This unit is an introductory course into financial management and project evaluation techniques in the context of their application to the resource sector. The course is designed to provide a basic understanding of the fundamental concepts and principles that influence investment and financing decisions of mining projects at the pre-feasibility stage. Topics include: fundamental differences between cash (management) accounting and financial accounting on an accrual basis; construction of simple Discounted Cash Flow (DCF) models of mining projects under assumed certainty; investment choices based on the main DCF criteria of value (i.e. NPV, IRR, discounted payback etc.); the role of equity and debt in funding projects to generate financial leverage the concept of risk, our attitudes to it and how to make decisions under uncertainty using either the expected value or the expected preference value criteria, sensitivity and scenario analyses and Monte Carlo simulations.
Presenters	Assoc. Prof. Pietro Guj



RESOURCE COST AND CAPITAL INVESTMENT 602 (FULL UNIT) (313412)

Location Curtin Graduate School of Business - 78 Murray St Perth WA

Dates 2-11 July 2012

Content Intensive 6-day short course. Each involves attendance in class for four hours per day (usually in the morning) and associated activity outside class in the afternoons and evenings. There is typically an examination scheduled on the final day of each unit. Topics include; a first exposure to the field of cost engineering designed to generate general awareness of the related methodologies rather than specialised technical expertise in the area. After a revision of fundamental Financial Accounting and Discounted Cash Flow (DCF) concepts and principles, students will be exposed to a number of different cost estimation methods including:

- Order-of-magnitude estimates using aggregate, average industry costs.
- Top-down modelling of broad component costs using empirical cost-throughput curves.
- Bottom-up estimation of disaggregated component costs using detailed estimates of their inputs quantities and unit costs, including equipment, labour, supplies etc.
- The use of DCF models to determine and assess contract-mining prices.

Presenters TBA

RESOURCE SECTOR FINANCE 602 (FULL UNIT) (306031)

Location Curtin Graduate School of Business- 78 Murray St Perth WA

Dates 5 - 14 Mar & 15 - 24 Oct, 2012

Content This unit has 32 contact hours taught over an intensive 9-day short course. Each involves attendance in class for four hours per day (usually in the morning) and associated activity outside class in the afternoons and evenings. There is typically an examination scheduled on the final day of each unit. Topics include: Strategic management-Porter's five forces and generic strategies, Porter's value chain - influence upon organisational structure. The resource-based view of the firm (core & key competence), does industry matter? Competitive strategy, co-operative strategy and "co-opetition", McKinsey's seven S's (strategy, structure, skills, style, staff, shared values, system), corporate strategy (the role of the corporate centre), portfolio theory & conglomerates, 'new' economy versus 'old' economy business models: is there a difference? Operations management - principles of scientific management (Taylorism), theory of constraints (Goldratt), critical path project management, 'Lean' production (The Toyota Production System), inventory management (is inventory an asset or liability?), management accounting (why use it?) and operations performance metrics

Presenters TBA

CURTIN UNIVERSITY - GBS/WASM

Pre-requisites required on a case-by-case basis. Please contact home institution coordinator.

For further information regarding any of the above Curtin units please follow the link:

http://gsb.curtin.edu.au/gsb/courses/MSc_MEE

CONTACTS

Listed below are the contact details for the Program Co-ordinators from institutions participating in the National Masters Geoscience Teaching Network.

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