



MASTER OF ECONOMIC GEOLOGY FIELD UNIT

Advanced Field Skills in Economic Geology

5–18 February 2023

CODES
CENTRE FOR ORE DEPOSIT AND EARTH SCIENCES

UNIVERSITY of
TASMANIA 

CODES, Centre for Ore Deposit and Earth Sciences, University of Tasmania

CRICOS Provider Code 00586B

Advanced Field Skills in Economic Geology
is offered as a unit in the national Minerals Geoscience Masters program.

MASTER OF ECONOMIC GEOLOGY

THE MOST COMPREHENSIVE MASTER DEGREE IN MINERAL EXPLORATION AND MINING GEOLOGY ANYWHERE IN THE WORLD

This course work-based Masters program is aimed at geoscientists who want to gain a thorough up-date on advances across the spectrum of economic geology applied to mineral exploration. The Master of Economic Geology at UTAS is part of the national Minerals Geoscience Masters program, jointly offered by the University of Tasmania and the University of Western Australia, in conjunction with Curtin Business School at Curtin University.

Course structure

The Masters course can be completed in either of two ways:

Option 1 (research pathway): requires the completion of six coursework units (worth 75% of total credit points) and a minor research thesis (worth 25%). Five of the units must be completed at CODES including thesis units KEA724 and KEA725, core units KEA712, KEA716 and at least one field-based unit, while the remainder may be completed at other participating universities. Duration: 18–24 months full-time; up to 36 months part-time (flexible in recognition of industry participants).

Option 2 (professional pathway): requires the completion of eight units of coursework, at least five of which must be undertaken at CODES including core units KEA712, KEA716 and

at least one field-based unit. Duration: up to 36 months part-time (but flexible in recognition of constraints on industry participants).

Participating universities offer up to seven units annually or in rotation over a two-year period. Most units are of two weeks duration.

Fees

UTAS tuition fees are approximately \$2,075 per unit (8 in total) for domestic students (2023 rate for Commonwealth Supported Places) and \$9,238 (AUD) per unit for full-fee paying overseas students (FFPOS) (2023 rate). Field-based units have additional costs. Costs will vary for units taught by other MGM partner institutions.

Entry Requirements

A BSc (Hons), or a BSc (majoring in geoscience) with at least two years industry experience. International students should also refer to <http://www.international.utas.edu.au>. English language proficiency requirements also apply.

Masters units offered by CODES

- 5 – 18 February 2023:
KEA718 Advanced Field Skills in Economic Geology [^]
- 12 – 24 March 2023:
KEA707 Ores in Magmatic Arcs (Indonesia) [^]
- 17 – 22 April & 8 – 12 May 2023:
KEA716 Fundamentals of Economic Geology ^{*}
- 29 May – 3 June & 3 – 7 July 2023:
KEA709 Ore Deposit Geochemistry, Hydrology and Geochronology [#]
- 7 August – 15 October 2023 (Intensive Part 2: 18 – 22 September):
KEA713 Geodata Analytics ^{*}
- September – October 2023:
KEA707 Ores in Magmatic Arcs (South America) [^]
- 16 – 27 October 2023:
KEA711 Geometallurgy [^]
- February 2024:
KEA718 Advanced Field Skills in Economic Geology [^]
- March 2024:
KEA708 Volcanology and Mineralisation in Volcanic Terrains (New Zealand, western Tasmania) [^]
- April – May 2024:
KEA716 Fundamentals of Economic Geology ^{*}
- June – July 2024:
KEA712 Ore Deposit Models and Exploration Strategies [#]
- October – November 2024:
KEA710 Exploration in Brownfield Terrains ^{*}

NB COVID-19 travel restrictions may impact the running of units with face to face delivery

^{*} online delivery

[#] blended delivery (week 1 face to face/online; week 2 online)

[^] face to face delivery

For further information contact:

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CODES.Info@utas.edu.au
Web: utas.edu.au/codes/masters-short-courses

UNIT PRESENTERS

Robert Scott is the Coordinator of the Master of Economic Geology program at CODES, and lecturer in Structural Geology in the Discipline of Earth Sciences at the University of Tasmania. He has extensive field mapping skills, and has been training geoscientists in field mapping for three decades.



Lejun Zhang is a Senior Researcher at CODES, University of Tasmania specialising in the application of alteration mineral chemistry for enhancing exploration in green rock and lithocap environments, and vectoring using SWIR and whole-rock geochemical data.



Francisco Testa is a Research Fellow and Lecturer at CODES, University of Tasmania, specialising in breccia-hosted Cu-Au mineralisation, porphyry Cu and epithermal Au deposits, remote sensing, hydrothermal alteration mineral and whole rock geochemistry.



COURSE INFORMATION AND PRELIMINARY PROGRAM

This field-based short course will be held in Tasmania over two weeks in February 2023. The course will teach fundamental and advanced mapping and field skills suitable for use in the minerals industry, including field-based rock and mineral identification, fact and form surface mapping, Anaconda-style mapping, structural measurement and graphic logging techniques for drill core, and the use of spectral, geochemical and remote sensing data sets in making and interpreting geological maps. This course has been identified as critical by the Minerals Industry to teach skills lacking for many graduates.

Part One: For the first part of the course, detailed structural and volcanic facies mapping will be conducted in polydeformed Cambrian submarine volcanic rocks near the Henty gold mine. The mapping area is ~15 km south, along strike from the world-class Rosebery Zn-Cu-Pb-Au-Ag volcanic-hosted massive sulfide deposit in the Cambrian Mount Read Volcanic belt, western Tasmania.

Techniques covered include graphic and structural core logging, volcanic facies mapping and interpretation and structural mapping and analysis of simply deformed regions.

Part Two: The second week of the short course involves a two-day Anaconda mapping and core logging exercise on the Mount Lyell mining lease (Western Tharsis Cu-Au deposit); a three-day advanced structural mapping exercise

in multiply deformed turbidites of the Mathinna Supergroup in NE Tasmania, and a one-day Anaconda mapping exercise on the Freycinet Peninsula examining features in Devonian granites formed at the magmatic-hydrothermal transition. In a post-fieldtrip assignment, students will complete an analysis of structural data collected during the second week of the fieldtrip.

All participants must carry their own PPE (steel-capped boots, long-sleeved shirts, long sturdy trousers, 'wet boots' (for wading), geological hammer, hand lens, scratcher, field notebook, pens/pencils (incl coloured), ruler, protractor, eraser, compass/clinometer. You will also need sun protection, and wet weather gear.

Registration fee inclusions

- Accommodation Feb 6th—17th inclusive (student accommodation will be shared)
- Ground transport
- Breakfasts, lunches and some group dinners

Exclusions

- Travel to and from Hobart (e.g. flights, accommodation in transit)
- Accommodation Feb 5th (also Feb 18th if flying out next day)
- Most dinners
- Alcohol

*** All participants are required to comply with all state government and UTAS COVID-19 regulations.**



REGISTRATION FORM

Advanced Field Skills in Economic Geology

5–18 February 2023

Please complete and return to:

CODES

University of Tasmania, Private Bag 79

Hobart, Tasmania, Australia 7001

Ph: +61 3 6226 2472

Email: CODES.Info@utas.edu.au

PERSONAL DETAILS

Title—Please highlight (Prof / Dr / Mr / Mrs / Ms / Miss)

First Name: Last Name: (surname / family name):

Preferred Name:

Position:

Company / University:

Address:

City: State: Postcode: Country:

Email: Phone (mobile / cell):

Dietary requirements / allergies / other health issues:

.....

Emergency contact (name and email/phone contact):

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REGISTRATION FEES

All fees are in Australian dollars (AUD) and include GST. Fees do not include flights to/from Hobart, or accommodation in Hobart.

Please indicate

Minerals Geoscience Masters Program (MGM) Students:

(Excludes UTAS tuition fee)

- Full course (\$1,800)- University of Tasmania enrolled
- Full course (\$1,800)- University of Western Australia enrolled

Industry Participants:

- Full course (\$3,500)*
- Part one– Western Tasmania (\$2,000)*
- Part two– Tasmania (\$2,000)*

Other Students:

- Full course (\$1,800)*
- Part one– Western Tasmania (\$1,150)*
- Part two– Tasmania (\$1,150)*

* Participant numbers for this course are capped, with preference to enrolled MGM students. Other interested parties will be advised whether they have secured a place by January 16th.

Please retain a copy of this form for your records and email or post original to CODES.Info@utas.edu.au

PAYMENT

Registrations are due by 12th of January, 2023. Full payments are due by the 26th of January, 2023.

Preferred payment method. Please indicate

- Credit Card
Upon receipt of your registration form and confirmation of your place, you will be provided with a payment reference number and web address for online payments. Please note: Credit card details cannot be accepted by email.
- Invoice (payment can be made by credit card or bank transfer)
Invoice to (name/company):
Attention to (optional):
Reference (e.g. order number (optional)):
Address:
.....
.....
Email address:

**MGM STUDENTS: THIS FORM DOES NOT CONSTITUTE
AN OFFICIAL UNIVERSITY ENROLMENT—YOU MUST
ALSO ENROL VIA ESTUDENT BY THE INTERNAL
DEADLINE (this may differ from the date above)**