# GEOS2121

## Volcanoes and Igneous Processes

Session 1, Weekday attendance, North Ryde 2020

*Department of Earth and Environmental Sciences*

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# General Information

Unit convenor and teaching staff
Dorrit Jacob
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Credit points
10

Prerequisites
(GEOS125 or GEOS1120) and (60cps at 1000 level or above)

Corequisites

Co-badged status

Unit description
Rocks erupted from volcanoes and those which intrude deeper in the Earth's crust hold clues to deciphering the melting and crystallisation processes that take place deep within the inaccessible Earth. This unit develops core skills, such as using polarised light microscopy, that enable you to investigate evidence from igneous minerals and rocks to unravel how, where and why they formed. The core skills build to use geochemical and petrological theory and methods to piece together the melting and crystallisation history of igneous rocks. Polarised optical microscopy of rocks and other natural and man-made materials opens a new world of discovery, relevant to geologists, palaeobiologists, soil scientists, archeologists and engineers alike.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

# Learning Outcomes

On successful completion of this unit, you will be able to:

**ULO1:** select and apply appropriate techniques (e.g. thin section microscopy, phase diagrams, geochemical analysis) that characterise and analyse geoscience materials to interpret their genesis and history.

**ULO2:** utilise knowledge of volcanic eruptions and their deposits to assess hazards posed by certain eruption styles.

**ULO3:** draw on and synthesise appropriate sources of information to examine complex

geoscientific problems and present ideas with supporting evidence.

**ULO4:** demonstrate effective team work skills and apply geoscientific principles to understand and solve real world problems.

# Assessment Tasks

**Coronavirus (COVID-19) Update**

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult iLearn for revised unit information.

Find out more about the Coronavirus (COVID-19) and potential impacts on staff and students

# Delivery and Resources

**Coronavirus (COVID-19) Update**

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

This unit runs as three interconnected streams. An online lecture stream will give a broad overview of the topics, provide background information and introduce new ideas and concepts that link in with the laboratory practical and case study streams. Each week the main takeaways of the online lectures will be summarised at the start of each workshop and knowledge acquired in the online lectures will be assessed by online quizzes carried out at the start of each week's workshop on campus. An extended version of the online quizzes will be assessed at midterm time. There will be one case study submitted in two or more parts throughout the semester. The case study is an extended assignment that covers all skills acquired in the unit and provide in depth individual learning experience outside the face-to-face sessions. You will be working individually for the case study. However, you are encouraged to consult with others in the class. You will be expected to do substantial research outside of the scheduled face-to-face time (e.g. library and/or web-based literature search, data processing and plotting) as for every other unit. There is no field trip associated with this unit.

# Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy

- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

## Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

# Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

## Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

## Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

## IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.