

GEOL470

Geology BSc(Hons) Research Project



School of Earth and Environment

30 points

Course Coordinator

Alex Nichols, email: alex.nichols@canterbury.ac.nz

Description

This course is comprised of a research project under the guidance of a chosen supervisor(s). The research project will be of an appropriate size for 30 points and may include summer field work. The results will be written up in a report and presented as a talk to the School.

Students must complete GEOL470 to be awarded the degree of Bachelor of Science with Honours in Geology.

Learning outcomes

On completion of this course students will be able to:

1. Conceive and develop a research project, including a set of research questions, manageable within the time and credit constraints of the course.
2. Conduct a review of the relevant literature that places the research in the context of previous work.
3. Select, use and describe appropriate methodology to achieve the project's objectives.
4. Undertake independent scientific research to achieve the project's objectives.
5. Present, describe and interpret the research findings, and discuss their implications.
6. Reflect critically on the research undertaken and that of others.
7. Prepare a well-written report of the research that includes high quality, original figures.
8. Communicate the research findings verbally in plain English to a scientifically-literate audience.

Goals:

- Plan and undertake independent research.
- Produce a report describing, illustrating and critically evaluating the rationale, methodology, findings and implications of that research.
- Present that research clearly in a talk to the School of Earth and Environment.

Graduate Attributes

- Critically competent in a core academic discipline of their award
- Employable, innovative and enterprising
- Biculturally competent and confident (depends on project)
- Engaged with the community (depends on project)
- Globally aware

Pre-requisites

Students must hold a BSc degree with at least a B Grade Point Average.

Recommended: BSc in Geology

UC graduates must have completed GEOL351, GEOL352 and an additional 60 points (90 points recommended) from GEOL300 level courses.

Other equivalent prerequisites may be considered but require approval from the Head of School/400-level Coordinator.

Co-requisites

90 points from GEOL400 level choices or relevant 400 level courses from other departments/schools with approval from the Head of School/400-level Coordinator.

Assessment

90% Research Report

10% Public Talk on the research conducted, to be given prior to submitting the report.

Getting Started

The student must have a Senior Supervisor and, normally, the research proposal must be completed and approved BEFORE enrolment into GEOL470.

Supervision

The student may work with more than one supervisor, but a Senior Supervisor must be identified among them. Members of the supervisory team may be from outside the School and University, but the Senior Supervisor has to be a continuing staff member in the School.

Research Proposal

Once the student has an agreed Senior Supervisor/supervisory team, they must work closely with them to develop a research proposal before they can be enrolled and start their research project. The proposal must be completed on the appropriate form, which can be obtained from the Course Coordinator. The student will also need to consult the Technical Services Manager and, if applicable, complete a Field Activity Plan. The proposal will be reviewed by the Course Coordinator, and returned to the student if revisions are required. Once the Course Coordinator approves the proposal, the student will be able to enrol and start the research project.

Start Date

GEOL470 has an anytime start date, but before starting the student must agree on a start date with their Senior Supervisor and the Course Coordinator after considering the report due dates in the Research Report Guidelines below and the implications for tuition fees.

Research Report Guidelines

Research Report Due Dates

The student must be enrolled in GEOL470 and their fees up-to-date when they submit their report.

For result at end of semester 1: **5 pm on last day of semester 1 study break.**

For result at end of semester 2: **5 pm on last day of semester 2 study break.**

(If the student is unable to meet their agreed deadline, they should speak to their Senior Supervisor and the Course Coordinator to discuss their options.)

Monitoring Progress

The student is not required to submit formal progress reports, but must meet with their Senior Supervisor regularly.

Report Length and Format

The report should normally be between **4,000 and 7,000 words**, excluding front matter (i.e., title page, contents page etc.) abstract, figures, tables, reference list and appendices. The format for body text should be 12 pt Times New Roman/Calibri, or equivalent, with 1.5 line spacing.

Title Page: The title page needs to include the project title, student's name, date and the wording, "Project report submitted in partial fulfilment of the requirements for the degree B.Sc. (Hons) in Geology at the University of Canterbury".

Contents Page: A list of chapters and sections of chapters, if applicable, together with the page numbers on which they begin must be provided.

Abstract: The abstract must be **no more than 300 words** and be on a separate page.

Figures and Tables: These should be clear and well drawn with a caption explaining what they show. They must be numbered in the order in which they appear/are referred to in the text, either consecutively throughout the entire report (e.g., 1, 2, 3, etc.) or each chapter (e.g., 1.1, 1.2, 2.1, 2.2 etc.). These numbers should be used to refer to them in the text.

References: References should be cited and listed at the end of the report using the [CSE \(Council of Science Editors\) style](#). For examples of the style, see recent papers published in the New Zealand Journal of Geology and Geophysics.

Appendices: Appendices can be added, if necessary, but please use conservatively, if at all.

Report Submission:

Draft(s) of the report should be read by someone (e.g., your Senior Supervisor) for comment before submission. This should be done well in advance so there is time to respond to any feedback.

The report should be submitted in **pdf format** on the GEOL470 course LEARN site.

The report will need to be run through **Turn-It-In** (available on the GEOL470 course LEARN site) to ensure there is no plagiarism. This will be checked by the Course Coordinator.

The student will also need to **submit a digital copy of the report to the School Postgraduate Administrator** who will add it to the School's thesis collection.

Examination Process and Feedback:

An Examiner (internal or external but not a member of the supervisory team) will be decided upon by the Senior Supervisor/supervisory team and the Course Coordinator prior to submission. The Course Coordinator will be provided with the Examiner's contact details. All correspondence with the Examiner regarding the marking will be dealt with by the Course Coordinator.

The Examiner and the Senior Supervisor will mark the report. Each will be required to provide a brief written report, in addition to recommending a grade and a mark out of 100, which they will submit to the Course Coordinator who will collate the marks and decide on a final grade for the report. If there is a large discrepancy in the marks, the Course Coordinator may ask the two examiners to read each other's report to see if they can reach a consensus.

Public Talk Guidelines

Abstract

The student will have to prepare a 300-word abstract 1-week prior to the talk. This will be used to advertise the talk to members of the School.

Talk Length and Target

A **12-minute** assessed conference-style talk, with extra time for questions and feedback, will be given during the School Seminar Series prior to the report being submitted. The talk should be accessible to a wide audience, including those unfamiliar with the subject matter. The talk will be organised by the Course Coordinator in consultation with the student and Senior Supervisor.

Assessment

The talk will be assessed by the Senior Supervisor and the Course Coordinator.

Final Grade for GEOL470

The final grade for GEOL470, based on the report and the public talk, will be decided upon at the School Examiners' Meeting.

The student will be notified of their grade for GEOL470 in the end of semester examination results.

After the examination process is complete, the student can request copies of the examiners' comments from the Course Coordinator.