GEOS348 Earth and Planetary Sciences students have an understanding of geological fieldwork, equipment and data analysis skills, enabling them to work on a wide range of geoscience projects.

**WHAT IS GEOS348?**
GEOS348 is a 50 hour (minimum) Professional and Community Engagement (PACE) activity for students nearing completion of their degree majoring in Earth and Planetary Sciences.

**HOW DOES A GEOS348 ACTIVITY WORK?**
Partners are invited to submit an activity to the Faculty of Science and Engineering PACE office which is then assessed for its suitability to meet the learning outcomes of the unit. Once an activity is accepted the unit convenor will allocate the most suitable students to your activity. Partners are then introduced via email to their student(s) and are free to commence working with their student(s).

At the end of the session partners are invited to the student presentations and are welcome to stay to watch other presentations. Partners are welcome to contact the PACE office at any time if they require assistance during the project.

**WORKING WITH GEOS348 STUDENTS**
The students can apply the skills they have developed working with geological equipment to create and analyse data to produce reports.

“The student was highly motivated and came with a good skill set from their undergraduate studies, requiring limited direct supervision during the projects. The student also showed initiative and produced an excellent product that extended the initial project concept.”

NATHAN DACZKO, ASSOCIATE PROFESSOR, MACQUARIE UNIVERSITY

“The PACE initiative is a great opportunity for the student to wrestle with real industry problems and issues and to receive some first-class on-the-job mentoring from seasoned industry professionals.”

IAN HODKINSON, GEOLOGY MANAGER, AUCTUS RESOURCES PTY LTD

“My involvement with PACE has given me the opportunity to work in a relevant industry, gain valuable insight and resulted in me receiving full-time work as a geotechnician.”

JAMES HANCOCK, 2018 GEOS348 PACE STUDENT
PARTNER REQUIREMENTS

• Partners must provide a host supervisor who can commit to regular communication with the student(s) allocated to the activity.
• We ask partners to avoid submitting a critical business activity.
• All partners complete an online activity statement about the project. The activity statement formalises the placement and also requests information regarding Work Health and Safety information on laboratory work fieldwork and/or the office environment.
• Partners do not have to host their student(s) at their office as students can work on research activities on campus. However, students appreciate the opportunity to visit partner locations and gain an in depth appreciation of the working environment.
• Students can apply for travel grants to assist with the cost associated with travelling to regional remote and international partners.
• Partners will be required to complete a short questionnaire at the end of the placement about the student’s performance.

EXAMPLES OF PAST ACTIVITIES

FIELDWORK/POLICY WORK

Fender Geophysics - Set up geophysical equipment in the field and collect survey data. The student then processed the data to report on the survey results and logistics.

Alpha Geoscience - Worked as a field assistant by collecting data on the subsurface of farm land. The student processed and reported on the data.

Northern Territory Geological Survey - Assisted with the formulation of policy and management techniques for data collection.

LABORATORY WORK

CSIRO Manufacturing - Investigated and reported on the potential classification of induced polarisation responses via the use of non-linear effects in sulphides.

MQ Earth and Planetary Science Department - using skills in wet chemistry the student assessed the intensity of forest fires in geological samples from above and below the Permian -Triassic mass extinction boundary.

OPPORTUNITIES AT THE UNIVERSITY

TerraneChron® Project - Using the LA-ICPMS technique the student worked on data processing, collection and interpretation in collaboration with Minerals Targeting International PL and the MQ Earth and Planetary Science Department.

MQ Earth and Planetary Science Department - Combined different data sets related to the universities Climate Science programs while improving their research methods.

MQ Earth and Planetary Science Department - Using the Pedestal software and scanning/photogrammetry equipment create 3D images of the EPS rock collection.

WOULD YOU LIKE MORE INFORMATION ABOUT PACE?

If you would like further information about PACE at Macquarie University please visit PACE - https://goo.gl/nvtEYV

For further information on the roles and responsibilities for all stakeholders please view our Governance and Guidance - https://goo.gl/f6D14H

To find out more about PACE units within the Faculty of Science and Engineering download our flyer - https://goo.gl/MMwMkJ

“In 2017 PACE received the Australian Financial Review Higher Education Award for Employability. This prestigious award recognises higher education initiatives which have demonstrably improved student employment outcomes.”