

GEOL 344

Advanced Field Studies



What is GEOL344?

We provide training and practical expertise in geological field mapping and advanced field techniques.

After GEOL344 you should have the logistical skills, practical field skills and confidence to conduct independent geological fieldwork.

After GEOL344 you should have the confidence to do field work associated with GEOL302, the industry, government institutions and research organisations.

Pounaweia notes

- Bring a sleeping bag and towel for Pounaweia
- We should already know your dietary restrictions, next of kin, medical conditions from the online form <https://www.otago.ac.nz/geology/study/field-trips/registration/>
(to be completed by 31st Jan)
- Bring snacks, water bottle etc etc. All meals, **except lunch on the first day**, are provided.
- **Appropriate field gear!**
- Drafting equipment – Technical pen 0.1mm or finer. **At Waianakarua/Maerewhenua you will lose marks if you use a thicker pen.**



Days in the field:
all day, every day, even if it's raining

Be Prepared: for anything



In Pounaweia we stay in a self-catering bunkhouse:



Typical field school camp at Waianakarua/Maerewhenua



If you have a tent you can bring
then please let us know (on the
orientation and safety document)

Typical field school
camping





What will you learn?

Pounawea

- Recording and interpreting structures.
- Stereographic projection techniques.
- Making and recording structural measurements.
- Up-scaling field structural data to generate reasonable geometric and kinematic models.
- Collecting sedimentological data.
- Process and environmental interpretations of sediments.
- Generating basin stratigraphy and palaeogeographic models.

Waianakarua/Maerewhenua

- Designing a mapping programme
- Geological reconnaissance
- Reading the landscape
- Location methods
- Making a well constrained field slip
- Cross section construction
- Generating a generalised vertical stratigraphy (GVS).

How will you be assessed?

1. Work collected from the field.
2. Group Presentation in the Catlins.
3. One to one (with a demonstrator) tests of proficiency whilst in the field.
4. Work completed in the evening based on fieldwork from the day.
5. Final map and report prepared on campus



Will you enjoy it? Naturally!



Read on to find out what gear you need to take



We will provide a high vis vest

If you want to purchase your own visit [Road Materials Workgear](#) or [NZ Safety Blackwoods](#)



What Dave takes in the field



phone
clock

suncream

torch

water

food

First aid kit: appropriate to your level of first aid training

whistle: it's hidden in the bag!

Stuff you need: safety/ emergencies



Backpack: big
enough to carry
everything

waterproof inner
or cover

Stuff you need: bags



see next slide

Stuff you need: clothes



Be ready for hot, cold, wet, sunny..

ankle protection

well-fitting:
laced.



covered toes and foot

grippy
soles

suitable footwear



unsuitable footwear



the rest- see next slide

Hammer: very useful but not essential.

Camera/ Binoculars: not essential but useful

Stuff you need: work gear





Elastic bands

Glue and sticky tape

3m (or longer) tape measure

30cm ruler

penknife

Pencils (HB and 2H), several of each and coloured pencils.

protractor

Rubbers and sharpeners

Map board (we supply)

A4 Card (we supply)

Notebook
see later

Grain size comparator (we supply)

Hand Lens: see next slide

Compass clinometer: see next slide

Stuff you need: work gear

Things to buy from University Book Shop

every student needs one of each of these

Hand lens.
Plastic or metal



Grain-size comparator
(we will provide this)

compass – clinometer. Needs to be a southern hemisphere compass. Put your name on it!

Stuff you need: work gear

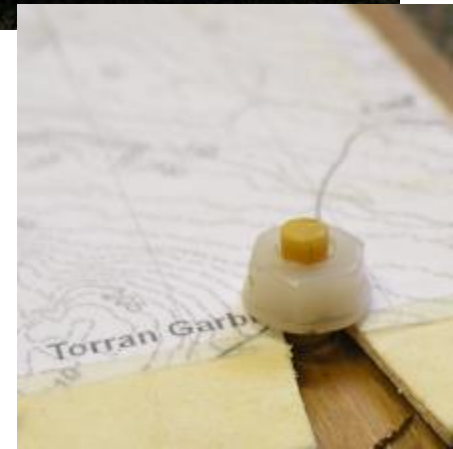
You will need a Map Board

maps glued
to stiff card
before
attaching

5 ply wood. 6mm
thick. Varnished.
A bit bigger than
A4



I use bolts -
bulldog clips
and/or elastic
bands (sewing
elastic rather
than rubber
bands) also
work



This is Dave's Map board

We will give you a simple
metal-backed map board

Stuff you need: work gear

Plastic bag for working in in the rain: heavy duty transparent polythene

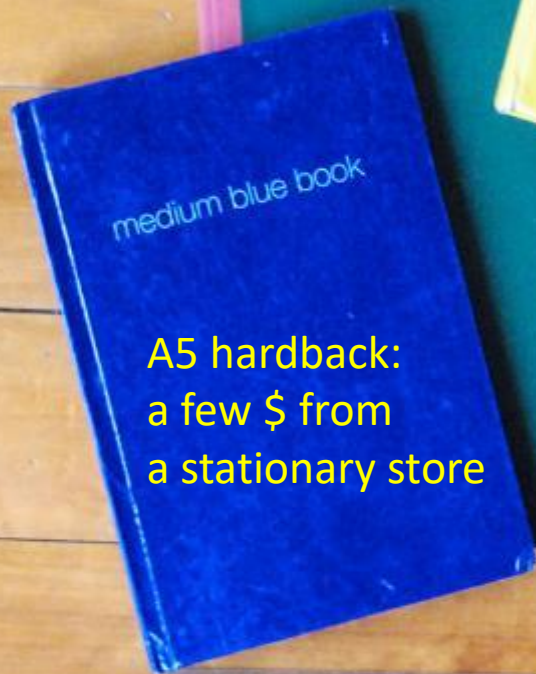


We will provide these

Stuff you need: work gear

Good Notebooks.

A4 hardback: a few \$ from a stationary store. Some students make better notes with more space but you have to carry it!



A5 hardback:
a few \$ from
a stationary store

A notebook with graph paper pages is often useful

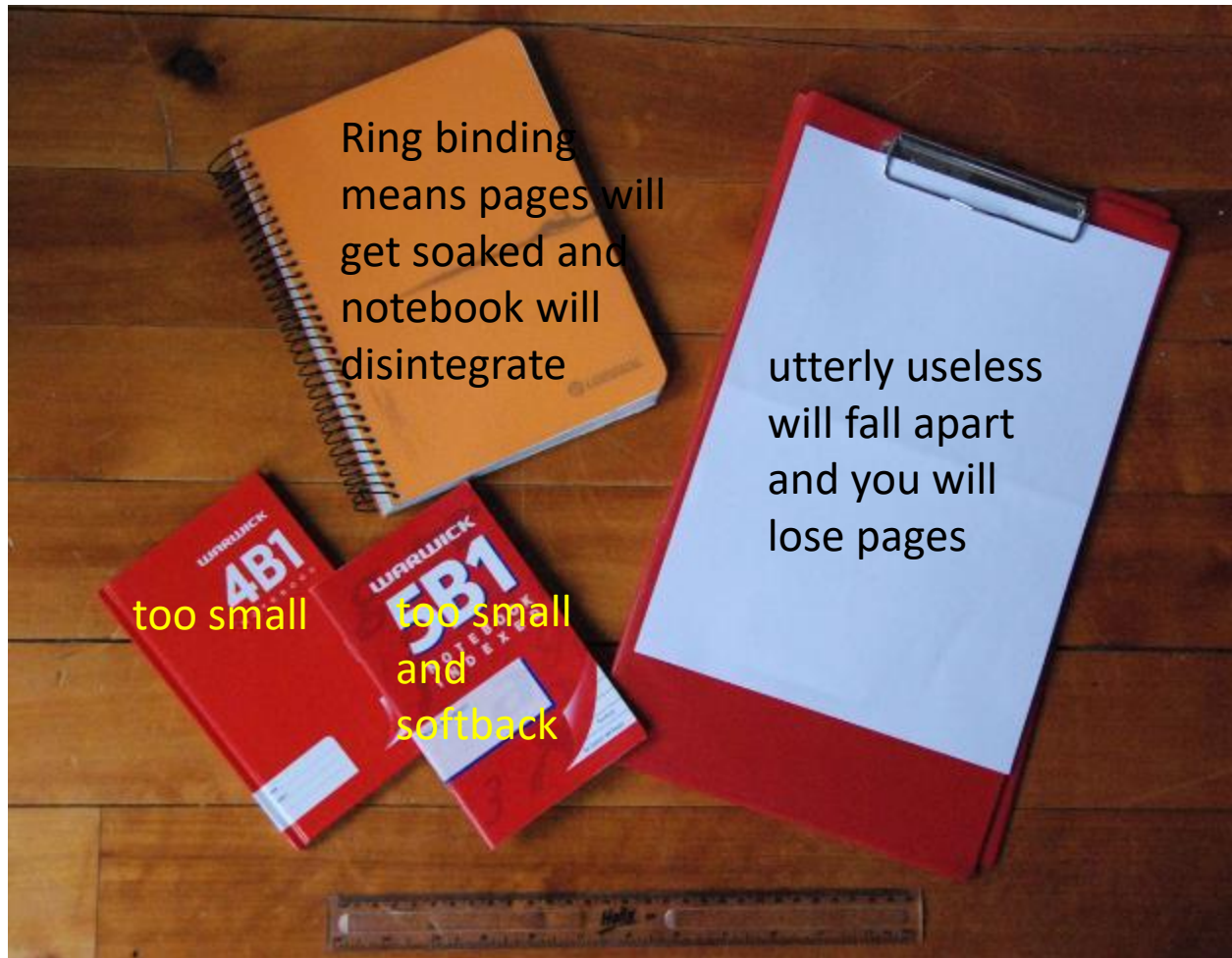


Professional Field Books.
These are the best- but
they are expensive



This style of book
available from
University Book
Shop.
Notebook also
contains various
reminder sheets

Stuff you need: work gear



Unsuitable Notebooks

You will need at least one technical* pen

Indelible ink, fine nib: 0.1mm or finer

Minimum Requirement: One 0.1mm pen Black

Ideal: One 0.1mm pen Black
 One 0.05mm pen Black
 One 0.1mm pen Red
 One 0.1mm pen Green or Blue

*modern high quality fibre tip pens (~\$5 to \$10 per pen) such as the one shown are sufficient. True technical pens (Rotring Rapidograph, Staedtler Mars Matic etc) are very expensive (\$50 per pen) – you don't need the expensive ones.



Stuff you need: work gear

Stuff to eat from/with



sleeping bag

towel

pillow case or pillow

sleeping mat

Stuff you need: camp gear

Please let us know if you can bring a tent and if you are happy to share it (how many):
do this on the registration form <https://www.otago.ac.nz/geology/study/field-trips/registration/>



Do you have a tent?