

Welcome to GEOS3171 Earth Structures in T1, 2022

Class Timetable:

Day	Wednesday	Friday
Class	Lab	Lab
Time	9am - 12 NOON	2-4 PM
Location	Face2Face D26 Teaching lab 2	Face2Face D26 Teaching lab 2

Course Description:

Most regions of the Earth's crust have been deformed over many millions of years, resulting in a complex three dimensional form. In Earth Structure you will learn to unravel this history. This course will demonstrate how large scale regional structures are inferred or measured from surface outcrop mapping.

Course Aims:

This course is aimed to enable students to develop comprehensive understanding of structural geology and its uses. This will be achieved through the investigation of different types of geological structures, their features, formational processes and environments, deformational history, structural evolution and geophysical data. You will learn how to identify, measure and analyse structures to appreciate how they developed and apply theory to solve real-world problems.

Assessment Task	Due date	Value (%)
Assessment 1a: Coastal joints	Week 2	5
Assessment 1b: Stereonets	Week 4	15
Assessment 2: Paper review	Week 8	15
Assessment 3: Bermagui Field Report	Week 10	35
Assessment 4: Final Lab Exam (3 hours)	Exam period	30
TOTAL		100

Week	Wed Lab 3 hr (9-12 AM)	Fri Lab 2hr (2-4 PM)	Assessments
O-WEEK			
Week 1 14.2-18.2	# Field trip: N. Maroubra	stereonet	
Week 2 21.2-25.2	# Field trip: S. Maroubra	Stereonet cont'd	Assessment 1: Joints
Week 3 28.2-4.3	Cross-sections	Cross-sections and structure contours	Assessment 2: Stereonets
Week 4 7.3-11.3	Introduction to map interpretation and analysis	Introduction to map interpretation and analysis	Assessment 3: Cross-sections
Week 5 14.3-18.3	Stress and Strain	Structural associations	Lab Ex 2: Structure contours
Week 6 21.3-26.3 Bermagui field trip Mon-Sat inclusive			
Week 7 28.3-1.4	Fault piercing point	Wilcox strain ellipse	Quiz 3: Wilcox strain ellipse
Week 8 4.4-8.4	Strain analysis	Diapirs and diapirism	Lab Ex 3: balanced cross-sections
Week 9 11.4-15.4	Geophysics	Gold in shear zones	
Week 10 18.4-22.4	Folds on maps	Group Presentations, Revision and Review session	Group Presentations; Bermagui Report
STUVAC			
EXAM PERIOD			