

SIO 152: Introduction to Petrology and Petrography

Lecture: M/W 9:00 AM – 10.20 AM (Vaughan 300)
Laboratory: M/W 10:30 AM – 1.30 PM (Vaughan 147)
Field Trip: 4-6 May 2018 (leave Friday PM, back Sunday PM)

Instructor- Dr. James Day
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Lab Instructor - Brian Oller
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General Note

This syllabus is an outline of proposed events. It is subject to change; however, never without notification, and never to advance the due dates of assignments.

Class Organization

- The lecture portion of class will be worth 40% of your overall grade. It will consist of one midterm exam worth 150 points, and a final exam worth 250 pts.
- The Field trip portion of class will be worth 15% of your overall grade. It will consist of keeping a notebook and writing a short report on the field trip for a total of 150 pts.
- The lab portion of the class will be worth 45% of your grade and will consist of three lab exams and a class lab project, totaling 450 pts.

The lecture text is *Essentials of Igneous and Metamorphic Petrology*, by Frost and Frost (1st edition), Cambridge University Press, ISBN 978-1-107-69629-7. The suggested laboratory text is *Petrography of Igneous and Metamorphic Rocks*, by Philpotts and *Optical Mineralogy*, by Kerr or Rogers and Kerr – these laboratory text books are available in the class room for you. You are responsible for reading the chapters assigned, and the exams will include material covered in the text. Please note, however, that there will be information covered in class that may not be covered in the books.

Absences and Missed Work

There will be no make-up examinations. In the cases of legitimate conflicts, notification is required at least one week before the regularly scheduled examination. In the case of deaths, accidents, or sickness, notification is appreciated as soon as possible and is required within one week of the regularly scheduled examination time. *All excuses must be in writing.*

Classroom Conduct

Disruptions during lecture will not be tolerated. Disruptive behavior including talking, excessive noise, poor behavior towards other students or instructors/TAs, arriving late/leaving early, reading newspapers in class, inappropriate language/comments in lecture/lab or on-line, or ringing cell phones will result in your being asked to leave the class. **Use of cell phones during class is not appropriate.** Continued disruption will result in failing grade and denial of re-enrollment. It is to your benefit to arrive on time because most announcements and assignments occur at the beginning of lecture/laboratory.

Accommodations for Documented Disabilities

Any student with a documented disability is welcome to contact me as early in the semester as possible so that we may arrange reasonable accommodations. As part of this process, please be in touch with the UCSD Office of Disability Resources (<http://disabilities.ucsd.edu/>).

Academic Integrity

Academic dishonesty includes failure to do your **own** work on any assignment (not just exams)! University policies, regulations, and standards of conduct can be found at:

http://www.ucsd.edu/current-students/_organizations/academic-integrity-office/

SIO 152 Schedule (subject to change, as necessary)

	Lecture	Lab
Week 1 M (2 Apr) W (4 Apr)	Intro to Petrology Sedimentary Rocks	Beach walk/Sediments lab Sediments lab
Week 2 M (9 Apr) W (11 Apr)	Intro to Igneous Rocks Visit to the GIA	Mantle rocks lab Visit to the GIA
Week 3 M (16 Apr) W (18 Apr)	Melting and the mantle Magmatic processes	Mantle rocks lab Mantle rocks lab
Week 4 M (23 Apr) W (25 Apr)	Phase Diagrams – the basics Intrusive igneous rocks	Mantle rocks lab Intrusive igneous lab
Week 5 M (30 Apr) W (2 May)	Granite to gabbro Mid-term examination	Intrusive igneous lab Mid-term examination
Field Trip (4-7 May) Point Sal Ophiolite		
Week 6 M (7 May) W (9 May)	More advanced phase diagrams Volcanism and extrusive rocks	Intrusive igneous lab Intrusive igneous lab
Week 7 M (14 May) W (16 May)	Intro and Types of Metamorphism Metamorphic minerals	Metamorphism lab Metamorphism lab
Week 8 M (21 May) W (23 May)	Metamorphic Reactions Tying it all together – the rock cycle	Metamorphism lab Metamorphism lab
Week 9 M (28 May) W (30 May)	NO CLASS – MEMORIAL DAY OBSERVED Case-study environments - global	Class project
Wk. 10 M (4 Jun) W (6 Jun)	Case-study environments – local Overview of petrology	Class project Class project
Wk. 11 W (13 Jun)	Final Exam! (8am until 10.59am)	