

## PETROLOGY LECTURE SCHEDULE

Dates	Week #	Readings	Topics
1/28, 30	1	Ch. 1	Introduction to Petrology / Norms and Modes (App. A)
2/04, 06	2	Ch. 4	Igneous Minerals / Petrographic Microscope
2/11, 13	3	Ch. 4	Textures of Igneous Rocks, Thin Section Preparation
2/20	4	Ch. 2	Magma and Igneous Rocks and Field Relationships
2/25, 27	5	Ch. 3	Introduction to Phase Diagrams
3/03, 05	6	Ch. 5	Magmatic Differentiation and more Phase Diagrams
3/10, 12	7	<b>MIDTERM; Ch. 1-5 (3/12)</b>	
3/24, 26	9	Ch. 6	Mafic Intrusives and Diversification of Magmas
3/31, 4/02	8	Ch. 7, 8	Basalt Generation and Ocean Floor Volcanism
4/07, 09	10	Ch. 9	Convergent Boundary Magmatism
4/14, 16, 23	11	Ch. 10	Granitoid Plutonic and Volcanic Rocks
4/28, 30	12	Ch. 11	Continental Interior Magmatism - Alkaline Rocks
5/05, 07	13	Outside Readings	Metamorphic Structures and Textures

**MIDTERM EXAM** (Mar 12) = 20% (Chapters 1-5, Phase Diagrams)

**FINAL EXAM** (Finals Week) = 20% (Chapters 6-11)

**LABS** = 40%

**LAB PRACTICUM** (May 07) = 20%

**Textbook:** McBirney, Alexander R., 2007, Igneous Petrology (Third Edition), Jones and Bartlett Publishers, 550 p.

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## PETROLOGY LAB SCHEDULE

Date	Lab #	Topic(s)
Jan 30	01	Staining Tricks, Norms, Modes, and the IUGS System ( <b>R1</b> )
Feb 06	02	Rocks, Minerals, and the Petrographic Microscope
Feb 13	03	Thin Section Preparation (with Lennie Cannone)
Feb 20	04	Minerals Textures: Hand Sample Descriptions ( <b>R2</b> )
Feb 27	05	Mafic Plutonic Rocks ( <b>R3</b> )
Mar 06	06	Ultramafic Plutonic Rocks ( <b>R4</b> )
Mar 12	07	<b>LECTURE MIDTERM</b> (Ch. 1 – 5)
Mar 26	08	Basaltic Rocks ( <b>R5</b> )
Apr 02	09	Andesitic Rocks ( <b>R6</b> )
Apr 09	10	Felsic Rocks ( <b>R7</b> )
Apr 16	11	Alkalic Rocks ( <b>R8</b> )
Apr 23	12	Metamorphic Rocks ( <b>R9</b> )
May 07	13	<b>FINAL LABORATORY PRACTICUM</b>

**(Rn)** A report must be submitted **within one week**. Points will be deducted for all late reports. In addition to references supplied for the reports, you are expected to conduct your own library research and I highly recommend getting a copy of *“The Study of Rocks in Thin Section”* by Moorhouse (see reading list). Reports should be typed or very neatly handwritten with drafted diagrams and illustrations of textures, etc. All students are urged to attend the **Geology of Long Island and Metropolitan New York** meeting set for Saturday 12 April 2008 at SUNY Stony Brook.

**Field trips are required** and I will organize two full-day trips: (1) the **Palisades Intrusive Sheet** Saturday, 05 April 2008, and, (2) the **Cortlandt Complex**, Saturday 19 April 2008.