

SCHEDULE OF LECTURES, READINGS, AND EXAMS

(subject to change over the duration of the course)

Please note that readings are assigned adjacent to the lecture preceding the class for which they should be completed.

<u>DATE</u>	<u>TOPIC</u>	<u>READING</u>
Week 1		
Sept 3	Course outline and assessment	Chp. 1
Sept 5	Mineral properties I	Chp. 2
Week 2		
Sept 8	Mineral properties II	Chp. 3
Sept 10	Review of tectonic processes and Earth composition	
Sept 12	Introduction to crystal chemistry	Chp. 4
LAB 1	Minerals in hand sample	
Week 3		
Sept 15	Crystal systems I	Chp. 11
Sept 17	Crystal systems II	
Sept 19	Symmetry and projection	
LAB 2	Identification of crystal systems	
Week 4		
Sept 22	Coordination and crystal structure	Chp. 5
Sept 24	Introduction to optical mineralogy	
Sept 26	Chemical classification of minerals	Chp. 6
LAB 3	Descriptions of crystal systems	
Week 5		
Sept 29	Chemical structure of minerals	Chp. 7
Oct 1	Chemical structure II	
Oct 3	Elemental chemistry I	
LAB 4	Advanced symmetry and projections	
Week 6		
Crystallography and optical mineralogy		
Oct 6	Elemental Chemistry II	Chp. 8
Oct 8	Chemical bonds in minerals I	Chp. 10
Oct 10	CANCELED	
LAB 5	Igneous minerals	
Week 7		
Oct 14 (Tues)	Mineral formulas I	Chp. 10
Oct 15	Optical Mineralogy; interference figures	
Oct 17	Review and catch-up	
LAB 6	CANCELED	
Week 8		
Oct 20	Lecture Exam 1	Chp. 15
Oct 22	Mineral formulas II	
Oct 24	Diffraction	Chp. 13
LAB 7	Uniaxial and Biaxial Interference figures	
Week 9		
Oct 27	Optical mineralogy I (relations with symmetry)	
Oct 29	Optical mineralogy II (isotropic minerals)	Chp. 16
Oct 31	Optical mineralogy III (anisostropic minerals)	

LAB 8	IN-LAB field trip	
Week 10		
Nov 3	Optical mineralogy IV (anisotropic minerals)	Chp. 17
Nov 5	Uniaxial optics I	
Nov 7	Uniaxial optics II	
LAB 9	Metamorphic Minerals	
Week 11		
Nov 10	Chemical analysis of minerals I	
Nov 12	UMass Tuesday schedules, no lecture	Chp. 9
Nov 14	Review and catch-up	
LAB 6		
Week 12		
Nov 17	Lecture Exam II	
Nov 19	Chemical analysis of minerals II	
Nov 21	EPMA and SEM studies	Chp. 20
LAB 10	Silicates I & II	
Week 13		
Nov 24	Environments of mineral formation I	
Nov 26	Environments of mineral formation II	Chp. 21
Nov 28	UMass Holiday – no class	
LAB 11	Mineral stability and triangular diagrams	
Week 14		
Dec 1	Mineral classification I	
Dec 3	Mineral classification II	Chp. 23
Dec 5	Non-silicate minerals	
Lab 12	Economic Minerals	
Week 15		
Dec 8	Project presentations	
Dec 10	Project presentations	
Dec 12	Project presentations	
Lab 13	LAB FINAL	