

GLY3200 - Principles of Mineralogy
Class 13270 (Mon lab); Class 13271 (Tues lab)
Fall, 2023

Introduction:

Textbook edition	1	2	3
Introduction	Chap. 1	Chap. 1	Chap. 1

Crystallography

Symmetry and point groups	6-18	11-23	12-24
Crystal faces and miller indices	19-23	25-30	25-32
Zones, Forms, and Habits	23-34	31-47	33-49

Mineral studies

Introduction to optics and the microscope	114-121	136-143-	142-149
Interference figures & Isotropic indicatrix	121-122	143-144	149-150
Intro and optics of anisotropic minerals	122-130	144-152	150-158
Optical Indicatrix	130-133	152-157	158-164
Interference figures	151-156	175-190	167-181
Color, pleochroism, extinction angle,	136-139	158-159	164-167

Crystal Chemistry

Basic chemistry	Chap. 3	Chap. 3	Chap. 3
Crystal structure and Pauling's Rules	57-65	67-76	71-81
Substitutions and Ternary Diagrams	65-72	76-84	81-88
Mineral Stability and Stability Diagrams	74-84	85-98	89-102
Twinning and Post Crystallization Processes	87-93	98-115	102-119

Systematic mineralogy

Systematic mineralogy and intro to silicates	183-200	211-229	219-238
Nesosilicates	305-325	338-358	350-369
Soro-, and cyclo-silicates	291-305	323-358	335-347
Ino and Phyllosilicates	235-289	266-322	277-333
Tectosilicates	201-234	231-264	240-274
Carbonates, sulfides, phosphates	326-355	359-389	371-400
Oxides, hydroxides, halides, native elements	356-404	390-413	402-424
Rocks and minerals – intro to petrology			

Classes Canceled

Labor Day	Sept. 4
Homecoming	October 6
Veterans Day	Nov. 10
Thanksgiving	Nov. 24

Reading Days: Dec. 7 and 8 – I am willing to provide a review one of these days

Field Methods field trip: October 27-31 (tentative)

1st Mid-term, September 22 (date may change)

2nd Mid-term, October 25 (date may change)

FINAL EXAM – Cumulative and mandatory: Wed. Dec. 13, 10:00 am-12:00 pm