

Literature list GEOV-103 Høst 2018

Obligatory literature:

William D. Nesse, Introduction to Mineralogy, Second International Edition (2013)
Oxford University Press
ISBN: 9780199859764

A reading list is attached with the chapters covered in the course.

In case you have an older version of this book, please see the reading list labelled FIRST EDITION.

Online literature (provided via Mitt UiB):

Gautam Sen, Petrology - Principles and Practice (2014)
Springer
ISBN 978-3-642-38800-2

Suggested literature:

Ole Johnsen, Minerals of the World (2002)
Princeton University Press
ISBN: 9780691095370

This is a useful mineral guide book with great pictures and descriptions. Worth buying if you consider continuing in geology/geochemistry/petrology.

Reading list GEOV-103 Høst 2018

William D. Nesse, Introduction to Mineralogy (2013)

Lecture 1: What is a mineral?

Reading: Chapter 1

Lecture 2: Elements and mineral chemistry

Reading: Chapter 3 (page 49-63)

Lecture 3: Crystal structure

Reading: Chapter 3 (page 63-66) + Chapter 4 (page 67-80)

Lecture 4: Crystallography

Reading: Chapter 2 (page 11-30)

Lecture 5: Crystal growth and recrystallization

Reading: Chapter 2 (page 44-45) + Chapter 4 (page 81-83) + Chapter 5 (page 85-108)

Lecture 6: Identifying minerals: physical properties and microscopy

Reading: Chapter 6 + Chapter 7 (page 137-150 and 175-176)

Lecture 7: Identifying minerals: structural and geochemical analyses

Reading: Chapter 4 (page 83-84) + Chapter 8 (page 184-189) + Chapter 9

Lecture 8: Silicates: ortho and ring silicates

Reading: Chapter 11 (page 211-214) + Chapter 15 + Chapter 16

Lecture 9: Silicates: chain and sheet silicates

Reading: Chapter 14 + Chapter 13

Lecture 10: Silicates: framework silicates

Reading: Chapter 12

Lecture 11: Non-silicates: carbonates, sulfates and oxides

Reading: Chapter 17 + Chapter 18 (page 390-409)

Lecture 12: Non-silicates: sulfides, native elements and halides

Reading: Chapter 18 (page 409-413) + Chapter 19 + Chapter 20

Lecture 13: Minerals in magmatic rocks

Reading: Chapter 11 (page 214-219, optional) + Petrology book Chapter 2

Lecture 14: Minerals in metamorphic rocks

Reading: Chapter 11 (page 223-230, optional) + Petrology book Chapter 15

Reading list GEOV-103 Høst 2018

William D. Nesse, Introduction to Mineralogy (FIRST EDITION)

Lecture 1: What is a mineral?

Reading: Chapter 1

Lecture 2: Elements and mineral chemistry

Reading: Chapter 3 (page 39-53)

Lecture 3: Crystal structure

Reading: Chapter 3 (page 53-56) + Chapter 4 (page 57-69)

Lecture 4: Crystallography

Reading: Chapter 2 (page 6-23)

Lecture 5: Crystal growth and recrystallization

Reading: Chapter 2 (page 37) + Chapter 4 (page 69-73) + Chapter 5

Lecture 6: Identifying minerals: physical properties and microscopy

Reading: Chapter 6 + Chapter 7 (page 115-127 and 151-152)

Lecture 7: Identifying minerals: structural and geochemical analyses

Reading: Chapter 4 (page 71-73) + Chapter 8 (page 161-164) + Chapter 9

Lecture 8: Silicates: ortho and ring silicates

Reading: Chapter 11 (page 183-186) + Chapter 15 + Chapter 16

Lecture 9: Silicates: chain and sheet silicates

Reading: Chapter 14 + Chapter 13

Lecture 10: Silicates: framework silicates

Reading: Chapter 12

Lecture 11: Non-silicates: carbonates, sulfates and oxides

Reading: Chapter 17 + Chapter 18 (page 356-373)

Lecture 12: Non-silicates: sulfides, native elements and halides

Reading: Chapter 18 (page 374-377) + Chapter 19 + Chapter 20

Lecture 13: Minerals in magmatic rocks

Reading: Chapter 11 (page 186-190, optional) + Petrology book Chapter 2

Lecture 14: Minerals in metamorphic rocks

Reading: Chapter 11 (page 194-200, optional) + Petrology book Chapter 15