

1	Course title	Mineralogy	
2	Course number	0305721	
3	Credit hours	3	
	Contact hours (theory, practical)	3, theory	
4	Prerequisites/corequisites	-	
5	Program title	M.Sc. in Geology	
6	Program code	-	
7	Awarding institution	-	
8	School	School of Science	
9	Department	Geology	
10	Course level		
11	Year of study and semester (s)	Fall or Spring semesters	
12	Other department (s) involved in teaching the course	None	
13	Main teaching language	English and Arabic	
14	Delivery method	✓ Face to face learning ☐ Blended ☐ Fully online	
15	Online platforms(s)	✓ Moodle ✓ Microsoft Teams ☐ Skype ☐ Zoom ☐ Others.....	
16	Issuing/Revision Date	Summer 2024	

17 Course Coordinator:

Name: Ghaleb Jarrar and Hind Ghanem

Contact hours:

Office number: Geology Building

Phone number: 22281

Email: h.ghanem@ju.edu.jo

18 Other instructors: NONE

19 Course Description:

This is an essential course in the science of geology. Virtually all aspects of geology are fundamentally tied to mineralogy, from geochemistry to geophysics. The major goal of this course is to give the student an advanced level of mineralogy and the role of minerals in Earth processes and Earth history. In this course, you will review the different mineral groups essentially forming the Earth, their chemistry, their crystal structures (how their atoms are arranged and why they are the way they are), their properties, their formation, their classification and how they respond to changes in temperature, pressure, and environment.

20 Course aims and outcomes:

A- Aims:

- To provide the student with the required level of knowledge for a MSc. in Geology of crystallography and mineralogy.
- To help students manipulate and interpret quantitative data in mineralogy to draw appropriate conclusions.
- To help students engage in scientific reasoning through the use of theories, hypotheses, data, and conclusions in the field of mineralogy.
- To help the students valuing the importance of minerals to the society and Earth Sciences.

B- B- Students Learning Outcomes (SLOs): Upon successful completion of this course, students will be able to:

1. To demonstrate understanding of crystallography, crystal chemistry, and systematic mineralogy.
2. To appreciate the influence of crystal chemistry on mineral assemblages and mineral processes.
3. To become comfortable working with mineral formulas and know the formulas for some common minerals.
4. To demonstrate understanding of how minerals are classified and named.
5. To demonstrate understanding of the structure, occurrence, properties, and chemistry of the different silicate and nonsilicate mineral groups.
6. Develop the ability to research and learn mineralogical topic individually and in groups.

21. Topic Outline and Schedule:

TBD

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLO	Period (Week)
Midterm Exam	30	TBD		End of eighth week
Home Assignments	10	TBD		Weekly
Project and presentation	20	TBD		Term-long project due at the end of the semester
Final Exam	40	TBD		End of semester

23 Course Requirements

Students should have a computer, internet connection, webcam, active account on Microsoft-teams.

24 Course Policies:

- A- Attendance policies:
as in school regulations.
- B- Absences from exams and submitting assignments on time:
as in school regulations.
- C- Health and safety procedures: as in school regulations.
- D- Honesty policy regarding cheating, plagiarism, misbehavior: as in school regulations.
- E- Grading policy:
 - *Project 20%*
 - *Home Assignments 10%*
 - *Midterm Exam 30%*
 - *Final Exam 40%*
- F- Available university services that support achievement in the course: NA.

25 References:

A- Required book(s), assigned reading and audio-visuals:

Required textbook: no specific required textbook.

C- Recommended books, materials and media:

- Introduction to Mineralogy, (second or third edition), by W. Nesse. Oxford University Press.
- Demange, M.A., 2012. Mineralogy for Petrologists: optics, chemistry and occurrences of rock-forming minerals. CRC Press.
- Assigned readings for different topics. See available resources on E-learning
- Any other textbook in Mineralogy is recommended.

26 Additional information:

NA

Name of Course Coordinator: -----	Signature: -----
---- Date: -----	
Head of Curriculum Committee/Department: -----	Signature: -----
Head of Department: -----	Signature: -----
Head of Curriculum Committee/Faculty: -----	Signature: -----
Dean: -----	Signature: -----