

Course Syllabus

1	Course title	Mineral Exploration	
2	Course number	0335421	
3	Credit hours	3	
	Contact hours (theory, practical)	3, theory	
4	Prerequisites/corequisites	0345381	
5	Program title	B.Sc. in Geology	
6	Program code	-	
7	Awarding institution	-	
8	School	School of Science	
9	Department	Geology	
10	Course level	400	
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 <input type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	✓ Moodle ✓ Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	Summer 2024	

17 Course Coordinator:

Name: Hind Ghanem

Contact hours:

Office number: Geology Building

Phone number: 22281

Email: h.ghanem@ju.edu.jo

18 Other instructors: NONE

19 Course Description:

The results of mineral exploration represent the first step towards investment in geology. To get acquainted with exploration steps and techniques, the following topics are discussed in this course: Ores, Mineral Economics and Exploration; Mineralogy and Geology of Mineral Deposits; Reconnaissance Exploration; From Prospect to Development; Remote Sensing; Geophysical Methods; Exploration Geochemistry; Mineral Exploration Data, Evaluation Techniques; case studies.

20 Course aims and outcomes:

A- Aims:

- Apply theoretical knowledge and practical skills to classify rocks and regions in a mineral exploration context
- Integrate and analyze geological, geochemical, and geophysical datasets to identify exploration targets, and make informed decisions about mineral resource potential
- Choose exploration techniques appropriate for particular ore deposit types, geographic and environmental settings and budgetary constraints
- Communicate mineral exploration findings to professional audiences

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

1. Be familiar with concepts and terms related to mineral economics, and mineral exploration.
2. Understand the mineralogy and geology of economic deposits.
3. Understand the basics of reconnaissance exploration.
4. Understand the basics of different exploration methods and their suitability to particular ore deposit types, geographic and environmental settings and budgetary constraints
5. Analyze and evaluate geological, geochemical, and geophysical datasets to identify exploration targets.

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
Trips, assignments and activities	15	TBD		Weekly
Project and presentation	15	TBD		Term-long project due at the end of the semester
Final Exam	40	TBD		End of semester

23 Course Requirements

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 and presentation 15%*
 - *Trips, assignments and activities 15%*
 - *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:

- *Introduction to Mineral Exploration*, (second edition), Edited by Charles J. Moon, Michael K.G. Whateley & Anthony M. Evans (available online).

C- Recommended books, materials, and media:

- Mineral Exploration and Mining Essentials, by Robert Stevens.
- Any other textbook in Mineral Exploration topics 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: -----