Form: Course Syllabus		
	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	
	Deans Council Approval Decision Number	2/3/24/2023
	The Date of the Deans Council Approval Decision	23/01/2023
	Number of Pages	06

1.	**Course Title**	Field Geology	
2.	**Course Number**	0305741	
3.	**Credit Hours (Theory, Practical)**	3	9 hours practical weekly
	Contact Hours (~~Theory~~, Practical)	Every Saturday from 8 Am to 5 PM	
4.	**Prerequisites/ Corequisites**	-	
5.	**Program Title**	MSc. In Geology	
6.	**Program Code**	0305	
7.	**School/ Center**	Science	
8.	**Department**	Geology	
9.	**Course Level**	Graduate	
10.	**Year of Study and Semester (s)**	-	
11.	**Other Department(s) Involved in Teaching the Course**	None	
12.	**Main Learning Language**	English	
13.	**Learning Types**	**X**☐Face to face learning ☐Blended ☐Fully online	
14.	**Online Platforms(s)**	☐Moodle ☐Microsoft Teams	
15.	**Issuing Date**	11-11-2024	
16.	**Revision Date**		

17. Course Coordinator:

Name: Abdalla Abu Hamad	Contact hours: daily 11-12.0
Office number: 118	Phone number: 0787583784
Email: a.abuhamad@ju.edu.jo	

18. Other Instructors:

None

19. Course Description:

This course will focus on geological **m**apping for a choosing area using different base maps, different mapping scales. **D**rawing columnar and cross sections. **St**ructural map and tectonic analyses for the mapped area and its relationship with regional tectonics. **Describe and analyze** any geological phenomena in the mapped area. **Writin**g geological report to the mapped area.

20. Program Student Outcomes (SO's): (To be used in designing the matrix linking the intended

1. Graduates can be able to use advanced information and technical skills to deal with complex geological challenges in industry, academia, or authorities sectors.
2. Graduates will tackle leadership roles, working efficaciously inside interdisciplinary groups, mentoring junior colleagues, and coping with projects that contribute to geological studies, useful resource management, or environmental conservation.
3. Graduates will make contributions to improvements in the discipline with the aid of accomplishing impactful studies, publishing findings in reputable journals, and making use of progressive procedures to geological problems, which include natural aid exploration, environmental safety, and danger assessment.
4. Graduates will display a dedication to lifelong mastering by staying up to date with new discoveries, technology, and methodologies, adapting to modifications within the subject, and attractive in professional improvement to enhance their knowledge and skills.

21. Course Intended Learning Outcomes (CLO's): (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

1. Students will show advanced expertise of geological standards, theories, and analytical techniques, equipping them to clear up complicated geological problems.
2. Students will develop the capability to design, conduct, and critically examine geological research, using quantitative and qualitative information evaluation to draw significant conclusions applicable to enterprise and academia.
3. Students will gain arms-on enjoy in fieldwork and laboratory settings, applying advanced geological techniques and tools to investigate geological phenomena and conduct resource assessments.
4. Students will be able to really and efficaciously communicate complex geological data in written, oral, and visual formats to various audiences, which includes technical and non-technical stakeholders.

Course CLOs	**The learning levels to be achieved**					
	Remembering	**Understanding**	**Applying**	**Analysing**	**evaluating**	**Creating**
1		**X**	**X**			
2		**X**	**X**			
3		**X**	**X**	**X**	**X**	**X**
4		**X**	**X**	**X**	**X**	**X**

22. The matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program:

Program SO's / Course CLO's	SO (1)	SO (2)	SO (3)	SO (4)
CLO (1)	X	X		
CLO (2)	X	X		
CLO (3)		X	X	X
CLO (4)			X	X

23. Topic Outline and Schedule:

Week	Field Trip / University	Topic	CLO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
1	1.1	Geological tools, equipment and safety. Geological and topographic maps. Introduction and preparation to the field trips (at the University).	1	Face to face At the Uni.			Problem set	Richard J. et. al 2011
2	2.1	Orientation, self-location using map and GPS and topographical features	1, 2					
3	3.1	Rock types, bed types, boundaries, Formation recognition and boundaries, Some sedimentary structures. Found a marker to start geological mapping every trip.	1-2					
4	4.1	Depositional environments and sea level fluctuations. Some tectonic features recognitions. Macro fossils collections.	1-2					
5	5.1	Beds, faults, joints and any sedimentological structures measurements and Analyses.	1-2	Face to face At field				Richard J. et. al 2011
6	6.1	Larg scale columnar section measuring more than 200 m thick comprising many formations .	1-3					
7	7.1	Detailed columnar section measuring based on highly deformed inclined strata.	1-3					
8	8.1	Visiting a very well exposed area, following the geological Boundaries, the structural features, the stratigraphic formations, and understanding the mapping techniques. Training for data collection.	1-3					
9	9.1	Visiting mapped area, inquire the economic, environmental and hazardous potential factors.	1-3					

10	101 10.1	Dead Sea field trips: recognize the exposed formation and the Jordan rift structure. Collect some index fossils.	1-3	Face to face at field				Richard J. et. al 2011
11	11.1 12.1 13.1 14.1	Choosing a well exposed area around 4 square kilometers. Reconstruct a geological map scale 1:10,000. Writing geological report for the area applying what learned Through the field trips. Mapping supervised by constructor.	1-4					
12								
13								
14								
15	15.1	Oral (practical) exam at field Theoretical exam at Uni.						

24. Evaluation Methods:

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

Evaluation Activity	Mark	Topic(s)	CLO/s Linked to the Evaluation activity	Period (Week)	Platform
Student's activities	50	Depends on field trip aim	1-4	Every week	
Oral (practical) exam	30	Selected questions	1-4	Last week (15)	
Final theoretical exam	20	General oriented questions	1-4	----	

25. Course Requirements:

(e.g.: students should have a computer, internet connection, webcam, account on a specific software/platform…etc.):

26. Course Policies:

A- Attendance policies: **university regulations**

B- Absences from exams and submitting assignments on time: **university regulations**

C- Health and safety procedures:

- Students of special needs should inform the instructor.
- They should know some of first aid skills.
- Safety equipment should be used like eye glasses, coolths, shoes….ect.
- Not working alone.
- Permissions and respects for the visiting areas.
- Teamwork spirit should be found.

D- Honesty policy regarding cheating, plagiarism, misbehavior: **university regulations**

E- Grading policy: May subjected to changes (depends on the overall results)

60- 64 C

65- 69 C+

70- 74 B-

75- 79 B

80- 84 B+

85- 89 A-

90-100 A

F- Available university services that support achievement in the course:

27. References:

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

- Basic Geological mapping, third edition, 1997, by John Barnes, Wiley

- Basic Geological Mapping, 5th Edition, Richard J. Lisle, Peter Brabham, John W. Barnes, 2011

- Personal notes

B- Recommended books, materials, and media:

https://books.google.jo/books?id=aw0spNbdr6YC&lpg=PA4&hl=ar&pg=PA33#v=onepage&q&f=false

Topographical and Geological maps (FYBSc Online practical)

28. Additional information:

Name of the Instructor or the Course Coordinator: **Prof. Abdalla Abu Hamad**	Signature: ……..……	Date: ……..……
	Signature:	Date:
Name of the Head of Quality Assurance Committee/ Department **Dr. Bety Saqarat**	……..……	……..……
Name of the Head of Department ……	Signature: ……..……	Date: ……..……
Name of the Head of Quality Assurance Committee/ School of Science **Prof. Emad A. Abuosba**	Signature: ……..……	Date: ……..……
Name of the Dean or the Director **Prof. Mahmoud I. Jaghoub**	Signature: ……..……	Date: ……..……