



Course Syllabus

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|----|--|---|--------------------------|
| 1 | Course title | Field Techniques | |
| 2 | Course number | 0305311 | |
| 3 | Credit hours | 3, | 9 hours practical weekly |
| | Contact hours (<u>practical</u>) | Every Saturday from 8 Am to 5 PM | |
| 4 | Prerequisites/corequisites | Stratigraphy and historical Geology | |
| 5 | Program title | B. Sc. In Geology | |
| 6 | Program code | 03052 | |
| 7 | Awarding institution | The University of Jordan | |
| 8 | School | Science | |
| 9 | Department | Geology | |
| 10 | Course level | Fourth year B.Sc | |
| 11 | Year of study and semester (s) | 2023/2024 first semester | |
| 12 | Other department (s) involved in teaching the course | None | |
| 13 | Main teaching language | English | |
| 14 | Delivery method | × <input type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online | |
| 15 | Online platforms(s) | <input type="checkbox"/> Moodle Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others..... | |
| 16 | Issuing/Revision Date | 31-10-2023 | |

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:

Name: Bety Saqarat

Office number: 110

Phone number: 0787583784

Email: b.sqarat@ju.edu.jo

Contact hours: Sunday, Tuesday and Thursday 10-12.0

Name: Mouiad hasenat

Office number: 210

Phone number: 0787583784

Email: m.hsinat@ju.edu.jo

Contact hours: daily from 11-12

19 Course Description:

Familiarization with compass and topographic maps and other field equipment; stratigraphic cross and columnar sections; geological survey for different rocks; columnar sections correlation; preparing reports on the geological and environmental surveys; investigating the environmental circumstances of Landslides and mining areas, as well as soil and water resources pollution. Facies and macrofossils description.

20 Course aims and outcomes:

A- Aims:

The main aims of this course are:

- To have a theoretical base about the type of geological maps, coordinates, grid system, methods of mapping.
- To teach the students some field techniques as compass measurements of beds and structures.
- Construct field columnar sections and cross sections
- Prepare a geological map of 1 km² area at scale 1: 10 000.
- Write a geological report on the mapped area.

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

- 1-Locating and tracing geologic contacts on topographic base maps, able to use and interpret aerial photographs.
- 2- Be able to use: Compass, and GPS systems for Mapping and Structural geology features: Faults, folds, inclined bedding.
- 3- Stratigraphy of sedimentary rocks. (and other types of rocks "according to the location".
- 4-Ability to describe out crops, contact relations, structures and lithologies in the field.
- 5- Preparation report, drafted map and other illustrations

| SLOs SLOs of the course | SLO (1) | SLO (2) | SLO (3) | SLO (4) |
|-------------------------------|---------|---------|---------|---------|
| 1 | X | | X | X |
| 2 | X | X | X | X |
| 3 | X | | X | |
| 4 | X | X | | X |
| 5 | X | | | X |
| 6 | | | | |

21. Topic Outline and Schedule:

| Week | Lecture | Topic | Student Learning Outcome | Learning Methods (Face to Face/Blended/ Fully Online) | Platform | Synchronous / Asynchronous Lecturing | Evaluation Methods | Resources |
|------|---------|--|--------------------------|---|-------------------------|--------------------------------------|--------------------|--|
| 1 | 1.1 | Introduction, Instruments and Equipment | 1 | Face to face | Microsoft Team and Zoom | | | -Basic Geological mapping, third edition, 1997, by John Barnes, Wiley -Personal notes |
| | 1.2 | | | Face to face | | | | |
| | 1.3 | | | Face to face | | | | |
| 2 | 2.1 | Geological maps, base maps, coordinates, grids | 2 | Face to face | | | | |
| | 2.2 | | | Face to face | | | | |
| | 2.3 | | | Face to face | | | | |
| 3 | 3.1 | Methods of geological mapping, | 3 | Field trip with all to typical area | | | | |
| | 3.2 | | | | | | | |
| | 3.3 | | | | | | | |
| 4 | 4.1 | Field measurements and techniques | 4 | Field trip with all to typical area | | | | |
| | 4.2 | | | | | | | |
| | 4.3 | | | | | | | |

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|-----|-----|--------------------------|---|---|--|--|---------------------------------|--|
| 5 | 5.1 | Columnar section | | Field trip with all to typical area | | | | |
| | 5.2 | | 5 | | | | | |
| | 5.3 | | | | | | | |
| 6-9 | | Mapping | 5 | Each three-student work together as group | | | Visitin ing each group | |
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| 10 | | Geotechnical, landslides | | | | | | |
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| 11 | | Final practical exam | | | | | 25grad s | |
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| 12 | | Handling the reports | | | | | 50grad s | |
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| 13 | | Theoretical exam | | | | | 25 Grads | |
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22 Evaluation Methods:

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

| Evaluation Activity | Mark | Topic(s) | SLOs | Period (Week) | Platform |
|------------------------|------|--------------------|------|------------------------|----------|
| Practical exam | 25 | Weekly report | | The last week | |
| Presentation | | Deferent chapters | | After 10 weeks | |
| Geological report | 50 | Different chapters | | After 12 weeks | |
| Final Theoretical exam | 25 | | | At the end of semester | |
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23 Course Requirements

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| Using Field Geology equipment's (campus, Hummer, GPS), Using Geological and Topographical Maps, Weekly Field Trip. |
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24 Course Policies:

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| A- Attendance policies: all should attend, no marks for absent student |
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- Attendance Policy: attendance is mandatory. Class non-attendance usually results in poor grades.
- All students are expected to follow the policies of the Student Code of Ethics as outlined in the Student Handbook.
- During class lectures, please make sure that all cell phones and pagers are silenced or are in vibrate mode. If you need to answer an urgent call (except during an exam), please leave the class to speak on the phone.
- Please make sure to arrive at class on time, as entering late is a distraction to the students and instructor. Students arriving after an exam has already been passed out (without legitimate excuse) will lose 10 points on that exam, and will have less amount of time to finish the exam compared with the rest of the class.
- Cheating may, at my discretion, result in an **F** for the course.

Grading will not necessarily be “on a curve.” There is no expectation of what the average grade should be, nor what the grade distribution should look like. If everyone were to demonstrate outstanding understanding of all the material, then everyone deserves a grade of A (and I would be very happy to give each one of them)! I therefore encourage you to discuss the course material with each other to get the most out of the class.

Note: the points and percentages given are approximations and may vary slightly

| Letter | Percentage |
|--------|------------|
| A | 90-100 |
| A- | 82-89 |
| B+ | 75-81 |
| B | 70-74 |
| B- | 64-69 |
| C+ | 60-63 |
| C | 56-59 |
| C- | 52-55 |
| D+ | 48-51 |
| D | 44-47 |
| D- | 40-43 |
| F | 0-39 |



- B- Absences from exams and submitting assignments on time:
- C- Health and safety procedures:
- D- Honesty policy regarding cheating, plagiarism, misbehavior:
- E- Grading policy:
- F- Available university services that support achievement in the course:

25 References:

- A- Required book(s), assigned reading and audio-visuals:
 - 1-Basic Geological mapping, third edition, 1997, by John Barnes, Wiley
- A- Recommended books, materials, and media:
 - Geology in the field, 1985 by R. Compton, Wiley

26 Additional information:



مركز الاعتماد
وإضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

Name of Course Coordinator: Abdalla Abu Hamad ----Signature: ----- Date: 31-10-2023

Head of Curriculum Committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

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Head of Curriculum Committee/Faculty: ----- Signature: -----

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Dean: ----- Signature: -----