



The University of Jordan

Accreditation & Quality Assurance Center

<u>Course syllabus</u>

Environmental Impact Assessment





12. Course Coordinator:

| 1. | Course title | Environmental Impact Assessment | | | |
|--|--|---|--|--|--|
| 2. | Course number | 0345483 | | | |
| | Credit hours (theory, practical) | 2 hrs. (Theory) | | | |
| 3. | Contact hours (theory, practical) | 2 hrs. (Theory / week) | | | |
| 4. | Prerequisites/corequisites | Environmental Geology 0305102 | | | |
| 5. | Program title | B.Sc. in Environmental and Applied Geology | | | |
| 6. | Year of study and semester (s) | | | | |
| 7. | Final Qualification | Toward acquiring a B.Sc. in Environmental and Applied Geology | | | |
| 8. | Other department (s) involved in teaching the course | No other departments are involved | | | |
| 9. | Language of Instruction | English | | | |
| 10. | Date of production/revision | | | | |
| 11. | Required/ Elective | Required | | | |
| Office numbers, office hours, phone numbers, and email addresses should be listed. | | | | | |
| Office number: Geo 307 Phone number (Office) : 009626 5355000 ext. 22254 | | | | | |

Phone number (Office) : 009626 5355000 ext. 22254 Cell: :00962796906169 Office Hrs. : Sun, Tue, Thu , 10 - 11 am : Mon , Wed , 9:30-11 pm Email: <u>mkuisi@ju.edu.jo</u>

13. Other instructors:

No other instructors (currently)

14. Course Description:

This course examines principles, procedures, methods, and applications of environmental impact assessment. The goal of the course is to promote an understanding of how environmental impact assessment is conducted and used as a valuable tool in the engineering project management decisionmaking process. Topics include: overview of environmental impact assessment; selection of scientific, engineering, and socioeconomic factors in environmental impact assessment; identification of quantitative





and qualitative environmental evaluation criteria; application of traditional and other techniques for assessing impacts of predicted changes in environmental quality; approaches for identifying, measuring, predicting, and mitigating environmental impacts; modeling techniques employed in environmental impact assessment; environmental standards and the environmental impact assessment process; and methodologies for incorporating environmental impact assessment into management decision-making. Students learn to prepare an environmental impact assessment, review and critically analyze an environmental impact statement, use mathematical models for environmental impact prediction, and apply environmental impact assessment as a tool in management decision-making. Case studies of environmental impact assessment for several types of engineering projects are employed.

15. Course aims and outcomes:

On successful completion of the course students will be able to:

Aims:

The course is aimed to help you in:

- Appreciate the purpose and role of EIA in the decision-making process;
- Understand strengths & limitations of environmental management;
- Know procedures
- Understand screening & scoping processes
- Interpret options for evaluating environmental and social impacts;
- Know formats of EIA Report (Environmental Impact Statement, or Environmental Statement);
- Understand the purpose of developing follow-up procedures, and options for designing these procedures.

Learning outcomes

- To critically examine assumptions inherent in impact assessment.
- To develop skills in identifying and solving problems.
- To provide students with an understanding of the historical evolution of impact assessment in selected parts of the world.
- To provide students with the knowledge and professional skills necessary to enable them to undertake environmental impact assessment.
- To examine a range of environmental impact assessments.
- To identify and explore impact assessment fields and approaches.
- To familiarize students with a variety of professional tools used in predicting environmental impacts.
- To enable students to develop skills in critical thinking and professional procedures through various forms of oral and written presentation and individual and group work.
- To encourage students to develop their own perspectives on impact assessment and to be able to relate this to other subject areas and to their wider understanding.





16. Topic Outline and Schedule:

| Торіс | Week | Instructor | Achieved ILOs | Evaluation Methods | Reference |
|--|------|---------------------|------------------|-----------------------|---|
| Introduction to environment management and EIA | 1 | Mustafa Al Kuisi | 100% | | Conducting Environmental Impact Assessment in Developing Countries Prasad Modak and Asit K. Biswas (1999) |
| Legal, Policy & Regulatory | 2 | Mustafa Al Kuisi | 100% | Quiz 1 | |
| framework | 3 | Mustafa Al Kuisi | 100% | | |
| EIA Procedure - Scoping & | 4 | Mustafa Al Kuisi | 100% | Quiz 2 | |
| Screening & establishing baseline conditions | 5 | Mustafa Al Kuisi | 100% | | |
| EIA Mathedalagiag | 6 | Mustafa Al Kuisi | 100% | Quiz 3 | |
| EIA Methodologies | 7 | Mustafa Al Kuisi | 100% | | |
| Impact Identification & | 8 | Mustafa Al Kuisi | 100% | Quiz 4 | |
| Analysis of Alternative – Part I | 9 | Mustafa Al Kuisi | 100% | | |
| Impact Identification & Analysis of Alternative – | 10 | Mustafa Al Kuisi | 100% | | |
| Part II | 11 | Mustafa Al Kuisi | 100% | Quiz 5 | |
| Stakeholders consultation / Public Involvement in EIA | 12 | Mustafa Al Kuisi | 100% | | |
| Impact Management & Preparation of EMP | 13 | Mustafa Al Kuisi | 100% | Quiz 6 | |
| EIA Reporting & Review of EIA Quality | 14 | Mustafa Al Kuisi | 100% | | |
| Decision Making & Project Management | 15 | Mustafa Al Kuisi | 100% | Quiz 7 | |
| Implementation & Follow up | 16 | Mustafa Al Kuisi | 100% | | |

17. Evaluation Methods and Course Requirements (Optional):

Opportunities to demonstrate achievement of the ILOs are provided through the <u>following</u> <u>assessment methods and requirements</u>:





Your grade for this course will be based on exams and assignments (e.g. problem sets, laboratory
training). Most of the assignments will require a considerable effort outside of class time. Be sure you
budget enough time for this course
Your grade will be determined as follows:
Seven Quizzes = 10%
First Exam = 20%
Second Exam= 20%
Final Exam = 50%
Total 100%

18. Course Policies:

- 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.

B- Absences from exams and handing in assignments on time:

Not turning assignments on time will result in getting a zero grade. (Monday from each week during the course)

C- Honesty policy regarding cheating, plagiarism, misbehavior:

As decided by the regulations of the University of Jordan.

E- Grading policy:

To pass this class, students must get at least 50%. The distribution of grades will vary depending on the student group, but the pass/fail grade is fixed. The A grade will not be given if no student gets more than 90%. When the class was taught in Fall 2017 the scale was the as following:

| Letter | |
|--------|--------|
| А | 90-100 |
| A- | 85-89 |
| B+ | 80-84 |
| В | 75-79 |
| B- | 70-74 |
| C+ | 65-69 |
| С | 60-64 |
| C- | 55-59 |
| D+ | 51-54 |
| D | 46-50 |
| D- | 41-45 |
| F | 0-40 |





19. Required equipment:

- 1. For lecturing: a data projector and white screen.
- 2. Student should have all necessary stationery with them.

20. References:

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

- A. Prasad Modak and Asit K. Biswas (1999): Conducting Environmental Impact Assessment in Developing Countries, United Nations, University Press, 364pp.
- Recommended books, materials, and media:
 - A. Lawrence P. D. (2003): Environmental impact assessment. Practical solutions to recurrent problems. Wiley-Interscience,
 - B. Larry Canter (1995): Environmental Impact Assessment.

21. Additional information:

| Date: |
|---|
| Name of Course Coordinator:Signature: |
| Head of curriculum committee/Department: Signature: |
| Head of Department: Signature: |
| Head of curriculum committee/Faculty: Signature: |
| Dean: |

<u>Copy to:</u>

Head of Department

Assistant Dean for Quality Assurance