



Course Specification

(Bachelor)

Course Title: Environmental Impact Assessment

Course Code: EVS 1354

Program: Bachelor of Science in Environmental Science

Department: Biology

College: Science

Institution: Imam Mohammed Ibn Saud Islamic University

Version: 1

Last Revision Date: -



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A. General information about the course:

1. Course Identification

1. Credit hours: 3 (2 Lecture + 2 Lab)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (Level 5/ 3rd Year)

4. Course General Description:

This course provides an introduction to Environmental Impact Assessment (EIA) as a critical tool for evaluating the potential environmental consequences of proposed projects, policies, or plans. Students will learn the principles, methodologies, and regulatory frameworks associated with EIA, as well as practical skills for conducting environmental assessments. Case studies and real-world examples will be used to illustrate the application of EIA in various contexts. Understand principles, processes, and necessary tools and techniques for environmental impact assessment, mitigation and monitoring. Evaluate the impacts of the project's activities on natural resources, ecological systems and community.

5. Pre-requirements for this course (if any):

EVS 1110

6. Co-requisites for this course (if any):

None

7. Course Main Objective(s):

After successful completion of this course, students will be able to: Understand the principles, methodologies, and regulatory frameworks associated with EIA, as well as practical skills for conducting environmental assessments, mitigation and monitoring. To provide practical skills for conducting different stages of EIA process, including scoping, impact prediction, mitigation, and monitoring. Evaluate impacts from project's activities on natural resources, ecological system and community. To analyze case studies and real-world examples to assess the

effectiveness and challenges of EIA implementation. To promote critical thinking and ethical considerations in the practice of environmental assessment.

2. Teaching mode (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|--|---------------|------------|
| 1 | Traditional classroom | √ | 100 % |
| 2 | E-learning | | |
| 3 | Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning | - | - |
| 4 | Distance learning | - | - |

3. Contact Hours (based on the academic semester)

| No | Activity | Contact Hours |
|-------|-------------------|---------------|
| 1. | Lectures | 30 |
| 2. | Laboratory/Studio | 30 |
| 3. | Field | 4 |
| 4. | Tutorial | 0 |
| 5. | Others (specify) | 0 |
| Total | | 60 |

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------------|--|-----------------------------------|---|--|
| 1.0 | Knowledge and understanding | | | |
| 1.1 | Outline the principle of environmental impact assessment. | K1 | Two credits weekly lectures | -Quizzes -Presentations -Assignments -written exams |
| 1.2 | Recognise processes of environmental impact assessment. | K2 | Two credits weekly lectures | -Quizzes -Presentations -Assignments -written exams |
| 1.3 | Explain the key concepts, methods, and techniques used in the assessment of environmental impacts. | K3 | Two credits weekly lectures | -Quizzes -Presentations -Assignments -written exams |
| 2.0 | Skills | | | |
| 2.1 | Relate the theory of each resource dimension to the environmental impact assessment. | S1 | Self-study is an important method for students' learning. | Questions in lectures. Short quizzes and exams. |
| 2.2 | Plan a research study in the field of environmental impact assessment | S2 | Introduce some concepts by examples from real life problems (i.e., Laboratory). | Participation through class work and Homework. |
| 2.3 | Apply integrated knowledge to enhance skills on environmental impact assessment. | S3 | Encourage students to communicate their biology thinking to ask and answer question when they arise. Motivate students to work cooperatively with their classmates to develop individual skills | Work portfolio. |
| 2.4 | Analyze case studies and real-world examples to assess | S4 | Self-study is an important method for students' learning. | Questions in lectures. Short |





| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------|--|-----------------------------------|--|---|
| | the effectiveness and challenges of EIA implementation. | | | quizzes and exams. |
| 3.0 | Values, autonomy, and responsibility | | | |
| 3.1 | Show ability to work in a team to solve problem regarding environmental issues. | V1 | Motivate students to ask questions and to give response to the teacher's questions. | Homework's, quizzes, exams and participation. |
| 3.2 | Share in specialized activities and present results of environmental impact assessment | V2 | Encourage the students to be self-starters to finish the chemical problems properly. Writing laboratory reports. | Evaluating the laboratory written reports and calculation skills. |
| 3.3 | Demonstrate accountability in carrying out the assigned work | V3 | Computer lab Presentations | Examinations, Laboratory performance and reports. |

C. Course Content

| No | List of Topics | Contact Hours |
|----|--|---------------|
| 1. | Introduction (Background of EIA, SEA, HIA). The steps and EIA processes. Definition and objectives of EIA Historical development and significance Relationship with sustainability and environmental management | 4 |
| 2. | Legal and Regulatory Frameworks Acts, laws, and regulations. Assessment of impact on ecosystem dimension (Terrestrial ecosystem). International conventions and agreements (e.g., Aarhus Convention, Kyoto Protocol) National and regional environmental laws and regulations Roles and responsibilities of stakeholders in the EIA process | 4 |
| 3. | Key Concepts and Methodologies Screening and scoping Baseline studies and data collection Impact prediction and assessment techniques Cumulative and synergistic effects | 4 |





| | | |
|--------------|--|-----------|
| 4. | Mitigation and Alternatives Analysis Principles of impact mitigation and avoidance Evaluation of alternative project designs or locations Best practices for integrating mitigation measures into project planning | 4 |
| 5. | Assessment of Quality-of-life dimension (health and socioeconomic). Public participation and public hearing in EIA process. | 4 |
| 6 | Assessment of impact on ecosystem dimension (Aquatic ecosystem). Assessment of impact on physical environmental dimension (soil and land use). | 4 |
| 7 | Assessment of impact on physical environmental dimension (water resource and air). Assessment of Quality-of-life dimension (health and socioeconomic). | 2 |
| 8. | Mitigation and monitoring. Conclusion and students' presentation. | 2 |
| 9. | Oral presentation. | 2 |
| Total | | 30 |

D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|---|--------------------------------|--------------------------------------|
| 1. | Midterm exam 1 | Around 5th -6th week | 15% |
| 2. | Midterm exam 2 | Around 7th -8th week | 15% |
| 3. | Quizzes, Attendance, Participation, assignments | | 10% |
| 4. | Lab reports | All the semester | 5 % |
| 5. | Final Lab Exam. | 15th week | 15% |
| 6. | Final Exam. | 16th week | 40% |
| 7. | Total | | 100 % |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References

- Eccleston HC. Environmental Impact Statements. Canada: John Wiley & Sons, Inc.; (2000). ISBN13: 978-0471358688.
- Lee N, George C, editors. Environmental Assessment in Developing and Transitional Countries - Principles, Methods & Practice. (2000). ISBN-13: 978-0471985570.
- Wathern P. Environmental Impact Assessment: Theory and Practice. Routledge; 2013.



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|--------------------------|---|
| | <ul style="list-style-type: none"> • Glasson J, Therivel R, Chadwick A. Introduction to Environmental Impact Assessment. Routledge; 2012. • Eccleston CH. Environmental Impact Assessment: A Guide to Best Professional Practices. John Wiley & Sons; 2005. • Canter L. Principles of Environmental Impact Assessment. CRC Press; 1996. |
| Supportive References | <p>http://www.kryeministri-ks.net/repository/docs/Final_EIA_Veterinary_Laboratory321.pdf.</p> <p>http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/Appendix%20B.pdf.</p> <ul style="list-style-type: none"> • Environmental Protection Agency (EPA). Environmental Impact Assessment. Retrieved from https://www.epa.gov/environmental-assessments • International Association for Impact Assessment (IAIA). Introduction to Environmental Impact Assessment. Retrieved from https://www.iaia.org/what-is-impact-assessment • United Nations Environment Programme (UNEP). (n.d.). Environmental Impact Assessment Training Resource Manual. Retrieved from https://wedocs.unep.org/handle/20.500.11822/25491 • World Bank Group. (n.d.). Environmental Impact Assessment: A Guide to Best Professional Practices. Retrieved from https://www.worldbank.org/en/topic/environmentalassessments |
| Electronic Materials | <p>http://environment.ec.europa.eu/law-and-governance/environmental-assessments/environmental-impact-assessment_en</p> |
| Other Learning Materials | |



2. Required Facilities and equipment

| Items | Resources |
|---|--------------------------|
| facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | Classrooms, laboratories |
| Technology equipment (projector, smart board, software) | Projector, smartboard |
| Other equipment (depending on the nature of the speciality) | - |

F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|--|----------------|--------------------|
| Effectiveness of teaching | Students | Direct |
| Effectiveness of Students assessment | Program leader | Direct |
| Quality of learning resources | Peer reviewer | Indirect |
| The extent to which CLOs have been achieved | Faculty | Direct |
| Other | | |

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

| | |
|---------------------------|-----------------------------------|
| COUNCIL /COMMITTEE | HEAD OF BIOLOGY DEPARTMENT |
| REFERENCE NO. | |
| DATE | |

