

ENHL242 (3 cr.): Environmental Management Tools and Applications
(For senior students majoring in Environmental Health)

Course Instructor: *Dr. May Massoud*

Office: Van Dyck, room 415

Office Hours: Tuesday and Thursday: 8:30 – 9:30 am and 12:30-1:30 pm or by appointment

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Location and Time: Van Dyck, room 103; Tuesday and Thursday: 9:30-10:45 am room 101

COURSE DESCRIPTION

Nowadays, many people ask for an “environmental certification” before purchasing a product. In the future, the same set of standards will be used to assess the environmental performance of facilities. The spread of a more systematic approach to environmental protection has increased the demand for professionals who are trained in environmental management. This course provides an overview of the general principles relating to environmental management and the relevant regulations and standards. It will focus on the theory and applications of environmental impact assessment (EIA) and environmental audits. Though the first part of the course is mainly lecture based, your participation in the form of questions and discussion is always welcomed and encouraged. Critical thinking will be promoted throughout the course. To enhance your field work experience and apply the principles and tools you have learned in class, you are requested to conduct an environmental health project. Emphasis is placed on investigating the problem and proposing management strategies.

This course is taught in a blended format which integrates online and face-to-face (F2F) activities and promotes active learning. Approximately 1/3 of the course learning is online and as such the F2F ‘seat time’ is reduced. This time is replaced by out-of-class collaborative activities including online assignments, case studies and discussion and group projects.

LEARNING OUTCOMES

- LO1. Describe the relationship between environmental management and sustainable development.
- LO2. Plan an EIA study.
- LO3. Design an effective environmental audit program.
- LO4. Critically evaluate information obtained from various sources.
- LO5. Based on field work, study the environmental impacts of a certain facility.
- LO6. Infer the risks/significance of environmental aspects or impacts.
- LO7. Formulate mitigation measures to address environmental impacts.
- LO8. Comprehend the ethical issues/dilemmas in environmental decisions.
- LO9. Write a professional technical report.
- LO10. Communicate effectively the project design and findings through verbal/poster presentation.

COURSE RESOURCES

There is no required textbook for this course. Lecture handouts will be available on the **course Moodle site**.

Mareddy, A. 2017. *Environmental Impact Assessment: Theory and Practice*. Elsevier.

Weston, J. 2013. *Planning and Environmental Impact Assessment in Practice*. Routledge, Taylor & Francis Group.

Pain, S.W. 2018. *Safety, Health, And Environmental Auditing: A Practical Guide*. Boca Raton: Taylor & Francis.

You might want to check out scholarly journals for current information. Access to some journals can be attained electronically. ([AUB Homepage](#), [Libraries](#), [Jafet](#), [Engineering and Science](#), [Current Journals](#), [Select a Discipline](#), [Environmental Science](#))

COURSE REQUIREMENTS AND ASSESSMENT

Weeks 1 and 2:

- Introduction to course content and requirements. (*F2F*)
- Introduction to environmental management. (*F2F*)
- You are required to study the reading and lecture material (PowerPoint lectures in pdf format) posted in the Content section of the course website.
- You should post an Introduction of yourself via the Discussion section of the course site.

Weeks 3 through 6

- Environmental Impact Assessment (EIA): Process; laws, policies, and institutional arrangements for EIA systems; public involvement; health and social aspects of EIA; assessment tools; impact mitigation measures and management; and EIA reporting process. (*F2F*)
- You are required to study the reading and lecture material (PowerPoint lectures in pdf format) posted in the Content section of the course website.
- Twice during this period, you are required to submit an assignment in the Dropbox.

Week 7

- Case Study: You will be provided with a comprehensive description of the case study and a detailed rubric for the Discussion. (*Online*)
- F2F session to clarify and elucidate conflict raising issues or key concepts that had not been correctly explained.

Weeks 8 through 10

- Principles of environmental audits: Environmental audit standards/ISO 14000 series; types of environmental audits and their application to environmental protection and performance improvement; and stages of environmental audit (pre-audit, audit, and post-audit stage). (*F2F*)

- You are required to study the reading and lecture material (PowerPoint lectures in pdf format) posted in the Content section of the course website.
- During this period, you are required to post to the Discussion forum answering questions that assess your understanding of the course material and to respond to at least one post.
- You will be provided with a detailed rubric for the Discussion.

Week 11

- Exam covering the material discussed from the beginning of the semester.
- F2F exam correction session.

Week 12

- Case Study: You will be provided with a comprehensive description of the case study and a detailed rubric for the Discussion. (*Online*)
- F2F session to clarify and elucidate conflict raising issues or key concepts that had not been correctly explained.

Weeks 10 through 14

- Community based project: You are requested to conduct a community based environmental health project (either EIA or audit). Emphasis is placed on investigating the problem and proposing management strategies.
- You are required to work in groups of 3. You will be provided with a list of skills needed in a group. Accordingly, you will identify each other and decide on roles.
- Group members are required to assess one another's work.
- Each group should choose a location or facility where they want to conduct their field work and get the approval of the concerned authorities. (You can do this any time before week 10)
- You should develop a list of relevant keywords and note down which keywords best identify relevant resources and explain why.
- You should search for three related credible websites, two journal articles, two books, and two government documents related to your project.
- A discussion forum will be available for each group for brainstorming and discussion. By means of the discussion forum you are required to discuss the process of conducting your field work. The participation of the group members in the discussion forum is very essential as it reflects your level of involvement in the project.
- You should submit an outline (draft action plan) of your project with a list of references before starting your field work.
- You are required to write a report and to submit it in the Dropbox. You will be provided with a detailed rubric for report evaluation.
- You are required to submit a draft copy of the report a week before the deadline for general feedback.
- You are required to submit a one-page reflection on the field experience.

- You should post your presentation online in advance so that everyone can see it, post their questions and prepare for the F2F oral presentation. You will be provided with a detailed rubric for grading oral presentations.

Week 15

- Poster/Oral presentations (F2F). Immediate feedback.

ASSESSMENT OF STUDENT PERFORMANCE

Table 1. Assessment methods mapped to course Learning Objectives

Mode of Assessment of Students	Learning Objectives									
	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10
Assignments (A total of 4, each 5 %)	X	X	X					X		
Case study I (8%)		X	X			X	X			
Case study II (8%)			X			X	X	X		
Exam (20%)	X	X	X		X					
Written report (15%)			X	X	X	X	X	X	X	
Poster/Oral presentation (14%)										X
Reflection (5%)	X							X		
Class participation (10%)	X	X	X			X	X	X		

Exams may include multiple choice, true/false, short answer/short essay questions and/or case studies.

Criteria for marking your written reports, oral presentations and discussion forums are given in appendices A, B and C (Moodle site).

Appendix D (Moodle site) helps you understand what constitutes an act of plagiarism. Appendix E (Moodle site) contains instructions on report formats for this course. While reports can be written in many formats and there is nothing sacred about the template given here, it is important that you learn how to follow a given format (for journals, conferences etc.).

COURSE POLICIES

Attendance

Attendance in this course follows University regulations. For more information, kindly refer to AUB Catalogue.

Class participation

Learning is an interactive process. Participation in class whether by asking questions when you don't understand or by giving your opinion when it is appropriate is essential for learning.

Team work

Working in a team is of great importance among multidisciplinary professionals. It requires communication and interpersonal skills, good coordination and project management. You should always do your share in partner or group work.

Assignments

You are expected to submit assignments on time. Late assignments will be penalized by a reduction in grade and should be submitted the following session. You should have a valid reason as determined by the instructor for not submitting the assignment on time.

Exams

You are expected to take exams on scheduled time. Failure to take a scheduled exam will result in a zero. Make-up exams may be given to students who provide a valid reason and supporting documentation as determined by the instructor. The instructor reserves the right to change the format and increase the level of difficulty on any make-up exam. Make-up exams must be scheduled within one week of the original examination date.

Withdrawal

The last day for a student to withdraw from this course is **Thursday Nov. 21, 2019**. Any student with an average grade below 60, by that date, is recommended to consult with his/her academic advisor and may consider withdrawing from the course.

Code of Conduct

Education is demanding and time management is essential. Do not hesitate to use the resources around you but do not cut corners. Cheating and plagiarism will not be tolerated. Please review the Student Code of Conduct in your handbook and familiarize yourself with definitions and penalties (AUB home page, www.aub.edu.lb; policies and procedures; Student Handbook). If you're in doubt about what constitutes plagiarism, ask your instructor because it is your responsibility to know. The American University of Beirut has a strict anti-cheating and anti-plagiarism policy. Penalties include failing marks on the assignment in question, suspension or expulsion from University and a permanent mention of the disciplinary action in the student's records.

Netiquette

- Your responses to the discussion questions should be constructive, relevant and straightforward, direct to the point, and demonstrate understanding of the topic.
- Respect other people's opinion and be tactful in responding.
- Think before you write, reread before you post and do not use slang language.
- Treat others the way you would like them to treat you.

Class Conduct

Be Punctual: Class will start on scheduled time. If you must arrive late or leave early, let me know in advance.

Kindly avoid activities that are disruptive to the learning environment in the classroom. You are expected to be respectful of other peers and the instructor at all times. Appropriate measures will be taken against disrespectful students in due time.

For more information please review all rules and regulations set forth in the current edition of the Student Code of Conduct (AUB home page, www.aub.edu.lb; policies and procedures; Student Handbook).

Communication via email

Announcements will be made in lectures as required. I will be sending all communication via Moodle to your AUB email accounts. All students should check their AUB email on a regular basis, as this is a primary means of communication for the course. You are responsible for any missed information in class or via email.

Course Evaluation

At the end of the semester you will be asked to fill a course evaluation form. Your objective opinion is highly solicited to get accurate data.

Students' Comments about Course Policies and Procedures

I welcome and encourage students' comments concerning any aspect of this course. It is recommended to submit your comments first in writing and discuss them with me outside of class time.

STUDENTS WITH SPECIAL NEEDS

AUB strives to make learning experiences as accessible as possible. If you anticipate or experience academic barriers due to a disability (including mental health, chronic or temporary medical conditions), please inform me immediately so that we can privately discuss options. In order to help establish reasonable accommodations and facilitate a smooth accommodations process, you are encouraged to contact the Accessible Education Office: accessibility@aub.edu.lb; +961-1-350000, x3246; West Hall, 314.

NON-DISCRIMINATION – Title IX – AUB

AUB is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University's non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University's Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at www.aub.edu.lb/titleix. To report an incident, contact the University's Title IX Coordinator Trudi Hodges at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via EthicsPoint at www.aub.ethicspoint.com.

COURSE PLAN*

Date	Topic/Assignment	F2F/Online
Aug. 29	Course content and requirements	F2F
Sept. 03	Introduction to environmental management	F2F
Sept. 05	Introduction to environmental management (Cont'd)	F2F
Sept. 12	Environmental Impact Assessment: Introduction/Overview	F2F
Sept. 17	EIA process	F2F
Sept. 19	EIA process: Assessment tools	F2F
Sept. 24	Assignment I	Online
Sept. 26	Impact mitigation measures and management	F2F
Oct. 01	EIA reporting process	F2F
Oct. 03	Assignment II	Online
Oct. 08	EIA Process in Lebanon	F2F
Oct. 10	Principles of environmental audits	F2F
Oct. 15	Assignment III	Online
Oct. 17	Types of environmental audits and their application to environmental protection and performance improvement	F2F
Oct. 22	Case Study I	Online
Oct. 24	Stages of environmental audit	F2F
Oct. 29	Assignment IV	Online

* The following is a general outline of material to be covered during the semester.

Note: the schedule is subject to changes in response to progress and opportunities that may arise in a given semester.

Any changes to the schedule will be announced in class and via Moodle to your AUB email accounts.

Oct. 31	Exam I	F2F
Nov. 05	Exam Correction	F2F
Nov. 07	Case Study II	Online
Nov. 12	Case Study/Report Discussion/ Guidelines for a reflection	F2F
Nov. 14	Deadline for submitting the first draft of the report	F2F
Nov. 19	Deadline for submitting the reflection paper	F2F
Nov. 21	Feedback on the first draft of the report	F2F
Nov.26	Deadline to submit the Final Report	F2F
Nov. 28	Poster/Oral presentations	F2F
Dec. 03	Poster/Oral presentations	F2F

Enjoy the course!