

Environmental Health Department,
Faculty of Health Sciences
American university of Beirut

ENHL 301: Environmental Health and Sustainable Development

I. Course Title: Environmental Health and Sustainable Development (1credit)

II. Course Instructor: Dr. Mey Jurdi

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III. Course Timing and Office Hours:

Section 1: Tuesday 9:00m- 10:15 am Vandyke Rm 332

Section 2: Tuesday 11:30 am-12:45 pm Vandyke Rm 332

IV. Course Description:

The course introduces the field of environmental health and highlights its role in contributing to sustainable development. Students discuss the environmental system and the interactions of its physical, socio-economic and political components impacting human health and ecologic vitality. Emphasis is placed on assessing, preventing, and controlling environmental hazards that pose major risks to humans, animals and ecosystems.

V. Course Learning Objectives:

By the end of the course, students should be able to:

- LO1. (Comprehension) Explain the environmental system and its interactions within the socio-economic and political context.
- LO2. (Application) Identify approaches for assessing, preventing and controlling environmental hazards that pose risks to humans, animals and ecosystems.
- LO3. (Comprehension) Discuss the interlinkages between health, environment and sustainable development through exploring the targets of the relevant sustainable development goals.
- LO4. (Analysis) Appraise the interplay between Environmental Health and other Public Health Disciplines

VI. Course Competencies

- CC1. Explain effects of environmental factors on a population's health.
- CC2. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg. One Health).

VI. Course Content:

<u>D</u> <u>A</u> <u>T</u> <u>E</u>	Session/Topic <u>Lecture and discussion and class work</u>		Learning Objectives (LOs) & Competencies (CCs)	Assessment Mode of LOs	Reference Material
<u>Sept</u> <u>3</u>	IA	Introduction The Environmental System: Living in a Healthy Environment (One Health Approach)	LO1 CC1-CC2	VIIA & VIB	VIII: Ref IA- B
<u>Sept</u> <u>17</u>	IB	The Environmental System: Life Support Systems (Geophysical, Biological and Social).	LO1 CC1-CC2	VIIA & VIB	VIII: Ref. IA- B
<u>Sept</u> <u>24</u>	IB	The Environmental System: Life Support Systems (Cont'd) (Geophysical, Biological and Social).	LO1 CC1-CC2	VIIA & VIB	VIII: Ref. IA- B
<u>Oct</u> <u>1</u>	IC	The Environmental System: Environmental Hazards (Physical, Chemical, Biological, Psychologic and Sociologic) in Residential and Work Settings	LO1 CC1	VIIA & VIB	VIII: Ref. IC-D
<u>Oct</u> <u>8</u>	ID	The Environmental System: Residues and Waste (e.g. Municipal Solid Waste, Hazardous Waste & Wastewater)	LO1 CC LO1 and	VIIA & VIB	VIII: Ref. IC-D
<u>Oct</u> <u>11</u>		Environmental Sustainability and Public Health	CC1- CC2 1- CC2	<u>Assignment 1)</u> <u>VII A & VIIB</u>	
<u>Oct</u> <u>15</u>	II A	Environmental Protection & Sustainable Development	LO3 CC1 - CC2	VII A & VIIC	VIII: Ref. IIA

<u>Oct</u> <u>22</u>	IIB	Environmental Factors underlying SD Goals (Class Presentations)	LO3 CC1 - CC2	VII A & VIIC (Assignment 2)	VIII. Ref. IIA
<u>Oct</u> <u>29</u>	II C	Environmental Factors underlying SD Goals (cont'd) (Class Presentations)	LO3 CC1- CC2	VIIA and VIIC (Assignment 2)	
<u>Nov</u> <u>5</u>	III A	Environmental Assessment and Management Tools: <i>A- Living Planet Index and Ecological Foot Print</i>	LO4 CC1- CC2	VIIA & VIID	VIII: Ref. IIIA
<u>Nov</u> <u>8</u>	III B	<i>B- The Cost of Environmental Deterioration and the Global Burden of Disease.</i>	LO4 CC1- CC2	VIIA & VIID	VIII: Ref. IIIB
<u>Nov</u> <u>12</u>	III C	<i>C- Strategic Environmental Assessment and Environmental Impact Assessment.</i>	LO4 CC1 - CC2	VIIA & VIID	VIII: Ref. IIIC
<u>Nov</u> <u>19</u>	III D	<i>D- Risk Analysis</i>	LO4 CC1 - CC2	VIIA & VIID	VIII: Ref. IIID
<u>Nov</u> <u>26</u>	III E	<i>E- Environmental Performance</i>	LO1 & LO4 CC1 - CC2	VIIA & VIID (Assignment 3)	VIII: Ref. IIIE
<u>Dec</u> <u>3</u>		Health and Environment Strategies locally, regionally and globally			

VII. Course Evaluation:

Type of Course Assessment	% Grade Contribution
<p>VIIA Class Contribution:</p> <p>Lectures will be followed by a discussion session/case study/ practical application, as such your contribution will be assessed.</p> <p>Students are expected to contribute to the activities based on reading the assigned references, posted slides and following class presentation.</p> <p>Additionally, students may be volunteered to reflect on your thoughts relating to the specified issue.</p>	15%
<p>VIIIB Assignment 1:</p> <p>Interplay between EH and other Public Health Disciplines (brief comprehensive summary of 1-2 pages).</p> <p>Upon completing section I you will submit assignment 1 that should:</p> <p>1a. Comprehensively reflect on the interplay between environmental health and the other public health disciplines</p> <p>1b. Present the importance of addressing environmental health issue relating to your public health practice in the specified area of MPH concentrations.</p>	20%
<p>VIIIC Assignment 2:</p> <p>Environmental factors underlying SDGs (Brief comprehensive report of 2-3 pages and class presentation of 5 minutes).</p> <p>Upon completion of Section IIA-B students will submit a brief report on major environmental challenges that needs to be addressed in meeting the targets of a one specified SDG (SDS 1, 2, 3, 6, 7,8,11, 12, 13, 14, 15...).</p>	35%
<p>VIIID Assignment 3:</p> <p>Environmental performance of a specified country (Brief analytical assessment report of 3-4 pages).</p> <p>Upon the completion of Section I, II, and III should will submit an analytical report on the environmental performance of one country of choice reflecting on progress in the areas of environmental health and ecosystem vitality.</p>	30%
	100%

As such, the Course Learning Objectives and Competencies will be evaluated as presented below:

Mode of Assessment of Students	YOUR COURSE Learning Objectives			
	LO1.(Comprehension) Explain the environmental system and its interactions within the socio-economic and political context	LO2. (Application) Identify approaches for assessing, preventing and controlling environmental hazards that pose risks to humans, animals and ecosystems	LO3. (Comprehension) Discuss the interlinkages between health, environment and sustainable development through exploring the targets of the relevant sustainable development goals	LO4. (Analysis) Appraise the interplay between Environmental Health and other Public Health Disciplines
VIIA Class Contribution (15%)	X	X	X	X
VIIIB Assignment 1: Interplay between EH and other Public Health Disciplines (brief comprehensive summary of 1-2 pages) 20%	X			X
VIIIC Assignment 2: Environmental Factors Underlying SDGs (Brief comprehensive report of 2-3 pages and class presentation of 5 minutes) 35%	X		X	
VIIID Assignment 3: Environmental performance assessment of a specified country (brief analytical assessment report of 3-4 pages) 30%	X	X		

	LO1	LO2	LO3	LO4	Assignment where Competency primarily assessed
CEPH LO# Explain effects of environmental factors on population's health	I	R	A	A	VIIC , VIID
CEPH LO# Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg. One Health)	I	R	A	A	VIIB, VIIC, VIID

VIII. Useful References:

Section I:

I.A. Purdon, P.W (2013). Environmental Health (Chapter 1: Environment and Health. Page 1-24). Academic Press.

I.B. Frunkim, H. Ed. (2016) “Environmental Health from Global to Local (Chapter 2: Ecology and Ecosystems as Foundation of Health. Page 27). 3rd Edition, Jonney Wiley & Sons.

I.C. Frunkim, H. Ed. (2016) “Environmental Health from Global to Local (Chapter 10: Environmental Health Ethics. Page 231). 3rd Edition, Jonney Wiley & Sons.

I.D. Cutter, S.L., Boruff, B. J.,and Shirly,W. L. (2003).“Social Vulnerability to Environmental Hazards”. Social Science Quaternary 84(2): 242-261.
<http://www.colorado.edu/hazards/resources/socy4037/Cutter%20%20%20Social%20vulnerability%20to%20environmental%20hazards.pdf>

Section II: Environmental Protection and Sustainable Development:

II.A. United Nations (2015). “The Millennium development Goals 2015” Available at: [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%2015\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%2015).pdf)

IIA1. United Nations (2015). “ About the Sustainable Development Goals ” Available at: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

II.B. Jurdi M et al (2012). Environmental Degradation: the Challenge of Sustaining Life in Jabour et al (ed.) Public Health in the Arab World. Cambridge University Press Chapter 4: Pp 47-59.

Sessions III: Environmental Assessment and Management Tools:

III.A. WWF Global (2018). Living Planet Report 2018. Available at: http://awsassets.panda.org/downloads/lpr_living_planet_report_2018.pdf

III.B. Sarraf, M., Larsen, B. and Owagan, M (2004). “Cost of Environmental Degradation: The Case of Lebanon and Tunisia”. The World Bank, Washington DC. Available at:

<http://www.meo.gov.html>

III.C. Achieng Ogola. P.F. (2007). Environmental Impact Assessment General Procedures. Presented at Short Course II on Surface Exploration for Geothermal Resources. Organized by UNU-GTP and KenGen, at Lake Naivasha, Kenya, 2-17 November, 2007. Available at: <http://www.afedonline.org/report2012/eng2012.html>

III.D. Hilgenkamp, R. (2016). "Environmental Health Ecological Perspective (Chapter 6: Environmental Risk Assessment and Interventions. Jonnes and Barlett Publishers. Massachusetta, USA, Pages 98-111).

III.E. Yale Center of Environmental law and Policy (2018). "Environmental Performance Index 2018" Available at: https://issuu.com/2018yaleepi/docs/epi2018_final

IX. Attendance

Attendance is necessary based on AUB rules and regulations. "A student who is absent without excuse for more than one third of the number of sessions in any course may be dropped by the instructor of the course" (AUB Graduate Catalogue AY 2019-20 Pp: 0).

X. Students with Special Needs

If you have documented special needs and anticipate difficulties with the content or format of the course due to a physical or learning disability, please contact me and/or your academic advisor, as well as the Counseling Center in the Office of Student Affairs (Ext. 3196), as soon as possible to discuss options for accommodations. Those seeking accommodations must submit the Special Needs Support Request Form along with the required documentation."

XI. Academic Integrity

The American University of Beirut has a strict anti-cheating and anti-plagiarism policy. So please review the AUB Graduate Catalogue AY 2019-20 (Pp: 47-48), and familiarize yourself with definitions and penalties. If you are in doubt about what constitutes plagiarism, ask because it is your responsibility to know.

XII- 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 Mitra Tauk at 01-350000 ext. 2514, or at: titleix@aub.edu.lb. An anonymous report may be submitted online via Ethics Point at: www.aub.ethicspoint.

Work Hard & Enjoy the Semester