EOH 740 - Fundamentals of Environmental Health
Fall 2017

Textbook: Nadakavukaren, A. 2011. Our Global Environment: A Health Perspective, 7th Ed. Waveland Press Inc., Prospect Heights, IL.

Reference/additional reading:
1) Maxwell, N.I. 2014. Understanding Environmental Health: How We Live in the World, 2nd Ed. Jones & Bartlett Learning, Burlington, MA
2) Journal articles to be distributed.

Course Content: This course will discuss the chemical, physical and biological factors in the environment and their interactions with the human activities. These interactions typically impact both the quality of life and environment. Special attention will be given to the following topics: 1) Population Growth and Environmental Stress, 2) Vector-borne and Foodborne Illnesses, 3) Toxic Substances and Risk Assessment, 4) Energy, Air Pollution, and Climate Change, 5) Water Resources and Water Pollution, and 6) Solid Waste Management. Upon completion of this course, each student will have a broad knowledge of the environmental health discipline and acquainted with the most important issues and challenges to be addressed in this field.

Class Format: Class format will consist of lectures and discussions. In addition to the textbook, research or review papers will assigned for you to read in advance for discussion in class. You may be called on during any class period to participate in the discussion, so it is imperative that you read the papers and prepare. These papers will be posted in WebCampus and announced in class. Material from the lecture, textbook, and assigned papers will all be included in the exams.

Lecture Note: Each lecture will be available to you through the internet-based WebCampus program at least 1 day before the class. The course is listed in WebCampus as EOH 740, section 1001. These notes should be brought to class and used to assist you in your learning experience. However, these notes are not to be used as a substitute for coming to class. These notes provide you with a tentative outline of the material, but are subject to change based on the rate of class progression. You are responsible for any changes, announcements, or assignments given during class time. Supplemental reading material will also be posted on WebCampus for you.

Exams/Grading: There will be a total of three exams: **two midterm exams** and a **final exam**, worth **50 points each**. The final will be comprehensive, covering material presented both before (50%) and after (50%) the 2nd midterm. Each student will also be required to write a **research paper** focusing on Environmental Health organizations with a minimum of 9 double-spaced typed pages (11 page maximum), worth **50 points**, due on **November 14, 2016.** The paper should be appropriately referenced and must include a complete bibliography (at least 5 references). An **oral presentation** of the research paper will be given by each student, worth **25 points.** Class participation will include attendance and group discussion, worth **25 points**, for a total of **250 points** for the course.

Research Paper: Each student will identify an environmental health organization to conduct his/her research. The organization can be at local, state, national, or international level and can

be governmental, nonprofit, charitable, or private entities. For example, Eco-USA's website contains a list of environmental organizations (http://www.eco-usa.net/orgs/index.shtml) in the United States. The Research paper should include: 1) Introduction, 2) Approach, 3) Impacts, 4) Challenges, and 5) Summary and Conclusion. The "Introduction" should introduce the environmental health issue(s), mission of the organization, and how its mission aligns with the issue(s). The "Approach" section should explain methods and tools the organization employs to achieve their objectives. Significant accomplishments and challenges should be discussed in the respective sections, and all the findings should be summarized in the conclusion of the research paper. Higher grades will be given to original information from the students' research, which may result from: 1) attending the activities or presentation held by the organization; 2) volunteering at the organization; 3) interviewing the organization staffs; and 4) studying/reviewing publications of the organization. Less grades will be given to secondary information from online or other introductory articles authored by other researchers.

*ALL PAPER TOPICS MUST BE CLEARED WITH THE INSTRUCTOR PRIOR TO BEGINNING ANY RESEARCH. PLEASE IDENTIFY A TOPIC AS SOON AS POSSIBLE. TOPICS WILL BE ASSIGNED ON A FIRST COME FIRST SERVED BASIS.

*For Ph.D. students, they are required to obtain original information from the organization for their paper and, in a separate section of their paper (2 pages minimum), recommend strategies to address challenges of the organization and provide an analysis on the possible outcomes of such strategies. In addition, Ph.D. students will be given an essay question that is tied to their qualification exam during the mid-term and final exams. These questions will weigh 30% in their final grade (the rest of assessment weighs 70%).

*Assignments completed for this course may be used as evidence of student learning in accreditation reports. Students who do not wish their work to be used for accreditation purposes must inform the course instructor in writing by the end of late registration. Your participation and cooperation are appreciated.

Late papers and make-up exams: Notify the instructor if you are not able to turn in your research paper on time. With advance notification, 5 points will be deducted from the grade for late papers. For papers turned in late without advance notification, AND for all papers turned in later than 1 week, 10 points will be deducted from the grade. Make-up mid-term exams must be scheduled with the instructor and completed within 1 week (i.e., before the next class period). Make-up final exams must be scheduled with the instructor and completed by the end of final exams week.

Grade Scale:
225-250	A
200-225	A-
175-200	B+
150-175	B
125-150	C
100-125	D
<100	F

<u>NOTE</u>: Anything below a B will not qualify for graduate credit.

<u>Competencies & Learning Outcomes</u>

By the end of this course students should be able to successfully:

- Select quantitative and qualitative data collection methods appropriate for a given public health context (MPH 02).

- Interpret results of data analysis for public health research, policy or practice (MPH 04).

- Assess population needs, assets and capacities that affect communities' health (MPH 07).

- Apply awareness of cultural values and practices to the design or implementation of public health policies or programs (MPH 08).

- Communicate audience-appropriate public health content, both in writing and through oral presentation (MPH 19).

- Characterize the biological, chemical and physical hazards affecting human and ecosystem health (EOH 01).

- Understand the effects of environmental contaminants and infectious diseases on the human body and apply knowledge of these factors in developing prevention and management strategies and making policy recommendations (EOH 02).

- Perform complex literature searches that aggregate results from multiple sources, assess literature quality, and demonstrate relevance to the student's work (EOH 03).

- Articulate the role of environmental health in the development of public policy and advocate for science-based environmental health policy positions (EOH 04).

- Evaluate the role of environmental and global health in the top challenges facing mankind, including overpopulation, energy, pollution, climate change, and infectious disease, to develop research directions and priorities (Ph.D. EOH 02)

Tentative Course Schedule

The lecture topics and reading assignments schedule is subject to change. Any changes to this schedule will be announced in class, and a revised schedule will also be posted in WebCampus.

Date	Topic	Chapter in Text	Competency Addressed	I=Introduced R=Reintroduced E=Enforced
August				
29	• Syllabus • Introduction to Ecological Principles • *Reading assignment #1 posted on WebCampus as pdf under "readings" folder*	1	MPH 07-08, EOH 01	I I I
September				
5	• Discussion of Reading #1 • Population Dynamics • Population Control • *Reading Assignment #2 posted*	2 3	MPH 02, 04, MPH 07-08	R I I
12	• Discussion of Reading #2 • The People-Food Predicament • Impacts of Growth on Ecosystems • *Reading Assignment #3 posted*	4 5	MPH 07-08, EOH 01	R E E
19	• Discussion of Reading #3 • Environmental Disease • Review for Mid-term I	6	MPH 07-08, EOH 01-02, EOH 04	R E I
26	• **Mid-term Exam I**	1-6; Readings 1-3	MPH 02, 04, MPH 07-08, EOH 01-02, EOH 04	E E E
October				
3	• Discussion of Mid-term I • Guideline to write your research paper • Toxic substances • *Reading Assignment #4 posted*	7	MPH 07-08, EOH 01-02, EOH 04	R E E
10	• **Deadline for submitting research paper topic** • Discussion of Reading #4 • Pest and Pesticide • Food Quality • *Reading Assignment #5 posted*	8 9	MPH 07-08, EOH 01-02	R E E
17	• Discussion of Reading #5 • Atmosphere • Clean Energy Alternatives • *Reading Assignment #6 posted*	11 12	MPH 07-08	R E E

Date	Topic	Readings	Objectives	
24	• Discussion of Reading #6 • Air Pollution • Review for Mid-term II	13	MPH 07-08, EOH 01-02, EOH 04	R E R
31	• **Mid-term Exam II**	7-9, 11-13 Readings 4-6	MPH 07-08, EOH 01-02, EOH 04	E
November				
7	• Discussion of Mid-term II • Guideline for making your research presentation • Radiation • *Reading Assignment #7 posted*	10	MPH 07-08, EOH 01-02	R I E
14	• **Research Papers Due** • Discussion of Reading #7 • Water Resources • Water pollution • *Reading Assignment #8 posted*	15 16	MPH 02, 04, MPH 07-08, MPH 19, EOH 03 EOH 02(PhD)	R E E
21	• Discussion of Reading #8 • **Student Presentation I** • Water Pollution (continued)	16	EOH 01-02, EOH 04	R E E
28	• **Student Presentations II** • Solid and Hazardous Wastes	17	MPH 19 EOH 01-02, EOH 04	E E E
December				
5	• Course Evaluation • **Student Presentations III** • Final Exam Review		MPH 19 EOH 02 (PhD)	E R
12	• **Final Exam**	1-17 (no 14) Readings 1-8	MPH 02, 04, MPH 07-08, EOH 01-02, EOH 04	R R R

ADDITIONAL COURSE INFORMATION (Fall 2017)

Academic Misconduct—Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility, and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling at UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the *Student Academic Misconduct Policy* (approved December 9, 2005) located at: https://www.unlv.edu/studentconduct/student-conduct.

Copyright—The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you, nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/provost/copyright.

Disability Resource Center (DRC)—The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

Final Examinations—The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: http://www.unlv.edu/registrar/calendars.

Incomplete Grades—The grade of I—Incomplete—can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving "I" grades in 500-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

Library Resources—Students may consult with a librarian on research needs. Subject librarians for various classes can be found here: https://www.library.unlv.edu/contact/librarians_by_subject. UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at https://www.library.unlv.edu/.

Rebelmail—By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have

been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. **Emailing within WebCampus is acceptable.**

Religious Holidays Policy—Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=6&navoid=531.

Transparency in Learning and Teaching—The University encourages application of the transparency method of constructing assignments for student success. Please see these two links for further information:
https://www.unlv.edu/provost/teachingandlearning

https://www.unlv.edu/provost/transparency

Tutoring and Coaching—The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit http://www.unlv.edu/asc or call 702-895-3177. The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of SSC **A** (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TBE second floor.

UNLV Writing Center—One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/.