



Master Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

Semester: Spring

Year: 2025

Course Prefix: HLTH

Course and Section #: 3450-001

Course Title: Public Health and the Environment

Credits: 3

Course Description

This course examines the relationship of people to their environment as well as health issues, the scientific understanding of causes, and possible future approaches to control of the major environmental health problems in industrialized and developing countries. Topics include how the body reacts to environmental pollutants; physical, chemical, and biological agents of environmental contamination; vectors for dissemination (air, water, soil); solid and hazardous waste; susceptible populations; and emerging global environmental health problems.

Please note, this is a hybrid course which means you will spend one day per week (Mondays) completing online activities, assessments, etc. and the other day (Wednesdays) in the face-to-face class. Furthermore, due to the nature of this course, your responsibility for self-study will be much higher than a traditional face-to-face course. Work completed on Mondays will focus on reading and online activities while Wednesdays will consist of a combination of lectures and application activities (e.g. site visits, guest speakers, etc.). In some cases, you will be responsible for completing the reading on a Monday before attending the site visit scheduled for Wednesday. If you believe this schedule will work for you, welcome to the class!

Course Attributes

This course has the following attributes:

- General Education Requirements
- Global/Intercultural Graduation Requirements
- Writing Enriched Graduation Requirements
- Discipline Core Requirements in Program
- Elective Core Requirements in Program
- Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: James Bemel

Student Learning Outcomes

Upon completion of this course, you will be able to:

- Analyze the major issues and concepts in the field of environmental health.
- Examine the transportation and spread of environmental threats.
- Identify vectors promoting the transfer of these threats from the environment to humans.

- Describe how these agents interact with biological systems, and the mechanisms by which they exert adverse health effects.
- Explain how factors, such as community perceptions, public health law, traditions, socioeconomic conditions, politics and interpersonal communications, may influence the practice of environmental health.
- Examine the basic responsibilities, programs and problems addressed by the major agencies and organizations involved in environmental health protection.
- Synthesize data in the field of environmental health.

Course Materials and Texts

Friis, R.H. (2019). *Essentials of Environmental Health*; Jones & Bartlett, 3rd Edition

Course Requirements

Course Assignments, Assessments, and Grading Policy

Team Charter

PSA Video

Oral Presentation

Student Presentation Evaluations

Team Member Evaluation

Site Visit and Guest Speaker Reaction Papers

Online Assignments:

Assignment #1 (discussion) – Each student will post under the Assignment #1 discussion topic. This posting will consist of a personal introduction of yourself including (1) where you're from and where you currently live, (2) your interests outside of class, (3) why you've chosen your current major, (4) what you hope to gain from this class, (5) where you see yourself in five years, and (6) anything else you would like the class to know about you.

Assignment #2 – After reading chapters 1 and 2, use your textbook to provide a 500-word essay on the impact of overpopulation upon the main topics of chapters 5-14. In other words, provide a one-page description of how overpopulation effects almost every other chapter topic in the textbook. Feel free to utilize valid resources other than your textbook.

Assignment #3 (discussion) – After reading chapter 14 and utilizing resources other than your textbook, summarize in a 500-word essay the dangers associated with distracted driving. Include statistics from reputable sources and share a personal story of when distracted driving almost caused (or did cause) an accident in your life (or in the life of someone you know). The goal of this assignment is to provide a compelling argument in favor of reducing distracted driving.

Assignment #4 – After reading chapters 6 & 7, select one toxin and provide a one-page written summary of the agent including (1) the source of the agent, (2) effects of the agent on the human body, (3) methods of controlling exposure to the agent, and (4) any additional pertinent information about the agent. Feel free to utilize valid resources other than your textbook.

Assignment #5 (discussion) – After reading chapter 8, conduct an internet search for worldwide nuclear power plant accidents. Summarize **three** accidents including (1) how the accident occurred, (2) how it could have been prevented, (3) the amount of radiation released, (4) the immediate area of fallout (where the radiation traveled/settled), and (5) the number of individuals injured or killed in the incident. Summarize these accidents in a 500-word essay.

Assignment #6 (discussion) – After reading chapter 12, describe how you believe sewage treatment will have to evolve to keep up with the growing population. For example, what will need to change so Utah County sewage treatment facilities are able to process the waste from the drastically increasing

population? Are there considerations beyond increased capacity that will need to be addressed? Summarize your response in a 500-word essay.

Assignment #7 (discussion) – After reading chapter 12, describe in a 500 word essay the practice of source reduction (including information other than the information presented in the textbook) and provide five or more methods of applying this practice to your own life.

Assignment #8 – After reading chapter 12, describe in a one-page paper (about 500 words) the legal and illegal methods of solid waste disposal in the United States and provide a discussion of each explaining why it is currently legal or illegal. Feel free to utilize valid resources other than your textbook.

Assignment #9 (discussion) – After reading chapter 5, submit a three-paragraph essay (1) describing the vectors presented in the chapter, (2) selecting the vector you believe is the most influential regarding disease transmission, and (3) providing detailed support for that selection (e.g. statistics, etc.). Feel free to utilize valid resources other than your textbook.

Assignment #10 (discussion) – Science agrees the planet is in a current warming trend. However, arguments exist about whether that change is due to man-made factors or natural factors. After reading chapter 10, research the arguments supporting man-made and natural climate change. On the date the assignment opens, I will assign you to one of the two sides and you will utilize the discussion board to post two arguments supporting your side. Furthermore, you will be required to respond to/refute at least one argument from the other side. Feel free to utilize valid resources other than your textbook.

No late work is accepted in this class.

Four assessments are conducted throughout the semester.

Grading will be based on the following:

Team Charter	10 points
PSA Video	100 points
Oral Presentation	50 points
Pres. Evaluations	50 points
Team Member Evaluations	100 points
Reaction Papers (4 x 10 points)	40 points
Online Assignments (10 x 10 pts)	100 points
<u>Exams (4 x 50 points)</u>	<u>200 points</u>
Total Points	650 points

NOTE: Individual work (presentation evaluations, reaction papers, online assignments, exams, and extra credit) will be weighted to account for 70% of your final grade in the class and the team work (video, oral presentation and team member evaluations) will be weighted to account for 30%.

Grade breakdown will be as follows:

- 94-100% = A
- 90-93.9% = A-
- 86-89.9% = B+
- 83-85.9% = B
- 80-82.9% = B-
- 76-79.9% = C+
- 73-75.9% = C
- 70-72.9% = C-
- 66-69.9% = D+
- 63-65.9% = D
- 60-62.9% = D-

59.9% or lower = E

Please note the instructor will adhere strictly to this grading scale. For example, a student who receives 89.9% (B+) in the course, will NOT be bumped up to a 90% (A-), but will instead receive a B+ in the course.

Required or Recommended Reading Assignments

Textbook chapters 1-12 are required reading.

General Description of the Subject Matter of Each Lecture or Discussion

Introductory Information

Fundamentals of Environmental Health

Overpopulation

Food Safety

Outdoor Recreation

Water Quality

Solid and Hazardous Waste

Vectors

Air Quality

Site visits to the drinking water treatment plant, landfill, and sewage treatment plant.

Required Course Syllabus Statements

Generative AI

AI programs are not a replacement for your human creativity, originality, and critical thinking. Writing, thinking, and researching are crafts that you must develop over time to develop your own individual voice. At the same time, you should learn how to use AI and in what instances AI can be helpful to you.

The use of generative AI tools (e.g. ChatGPT, Google Bard, etc.) is permitted in this course for the following activities:

- Brainstorming and refining your ideas;
- Finding information on your topic;
- Drafting an outline to organize your thoughts; and
- Checking grammar and style.

The use of generative AI tools is not permitted in this course for the following activities:

- Impersonating you in classroom contexts, such as by using the tool to compose discussion board prompts/responses.
- Writing a draft of a writing assignment.
- Writing entire sentences, paragraphs or papers to complete class assignments.

You are responsible for the information you submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content). Your use of AI tools must be properly documented and cited in order to stay within university policies on academic honesty. Any student work submitted using AI tools should clearly indicate what work is the student's work and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, please reach out to the instructor for a conversation before submitting your work.

Using Remote Testing Software

This course does not use remote testing software.

☒ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their [rights and responsibilities](#). In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in [UVU Policy 541: Student Code of Conduct](#).

Equity and Title IX

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis

protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.