

# PUBH 6132, SECTION 1

Air, Water and Health  
Fall 2018

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## COURSE & CONTACT INFORMATION

**Credits:** 2

**Meeting Day(s):** Wednesday

**Meeting Time:** 9:05-11:00

**Meeting Place:** 1250 Mayo

**Instructor:** Matt F. Simcik

**Email:** msimcik@umn.edu

**Office Phone:** 6-6269

**Fax:** 6-0650

**Office Hours:** by appointment

**Office Location:** 1108 Mayo

## COURSE DESCRIPTION

In this course we will explore the issues related to providing adequate levels of clean air and water. Specific issues include local water quantity and quality and local air quality in both the developed and developing world, as well as global air and water quality, and policies meant to protect these resources.

## COURSE PREREQUISITES

none

## COURSE GOALS & OBJECTIVES

By taking this course you will be able to incorporate air and water pollution and water supply into your scientific investigation of environmental health. A basic understanding of all the topics, and specialized knowledge in one or more particular areas will be mastered. Objectives: 1. Understand the basic components of a water treatment system; 2. Understand the basic components of a wastewater treatment system; 3. Be able to list common hazards in drinking water from both the developed and developing world; 4. Be able to identify the important air pollution issues on the local scale in both developing and developed world and on the global scale; 5. Be able to identify and discuss the merits of existing and proposed legislation and/or international treaties concerning water quantity and quality and air pollution.

## METHODS OF INSTRUCTION AND WORK EXPECTATIONS

**Course Workload Expectations [Note: you can customize this to your course or replace with your own language]**

Air, Water and Health is a 2 credit course. The University expects that for each credit, you will spend a minimum of three hours per week attending class or comparable online activity, reading, studying, completing assignments, etc. over the course of a 15-week term. Thus, this course requires approximately 90 hours of effort spread over the course of the term in order to earn an average grade. Expectations for learning will be given prior to each lecture and a quiz will be given on the material from the expectations, obtained from the lecture. Each lecture will be designed to be a mixture of lecture and discussion. Be prepared. If you have no questions for me, I am certain to have some for you. This is the only way outside of exams and quizzes that I have to evaluate my teaching and your learning.

**Learning Community [Note: you can customize this to your course or delete]**

School of Public Health courses ask students to discuss frameworks, theory, policy, and more, often in the context of past and current events and policy debates. Many of our courses also ask students to work in teams or discussion groups. We do not come to our courses with identical backgrounds and experiences and building on what we already know about collaborating, listening, and engaging is critical to successful professional, academic, and scientific engagement with topics.

In this course, students are expected to engage with each other in respectful and thoughtful ways.

In group work, this can mean:

- Setting expectations with your groups about communication and response time during the first week of the semester (or as soon as groups are assigned) and contacting the TA or instructor if scheduling problems cannot be overcome.
- Setting clear deadlines and holding yourself and each other accountable.
- Determining the roles group members need to fulfill to successfully complete the project on time.
- Developing a rapport prior to beginning the project (what prior experience are you bringing to the project, what are your strengths as they apply to the project, what do you like to work on?)

In group discussion, this can mean:

- Respecting the identities and experiences of your classmates.
- Avoid broad statements and generalizations. Group discussions are another form of academic communication and responses to instructor questions in a group discussion are evaluated. Apply the same rigor to crafting discussion posts as you would for a paper.
- Consider your tone and language, especially when communicating in text format, as the lack of other cues can lead to misinterpretation.

Like other work in the course, all student to student communication is covered by the Student Conduct Code (<https://z.umn.edu/studentconduct>).

## COURSE TEXT & READINGS

The students will sign-up to bring in one reading on water and one on air that interests them, and discuss it with the class. Depending on class size we will have two to three readings to discuss each week. The readings must be turned in to the instructor at least two days prior to class.

## COURSE OUTLINE/WEEKLY SCHEDULE

Week	Topic	Readings	Activities/Assignments
Week 1 September 5 <sup>th</sup>	<ul style="list-style-type: none"> <li>Properties of Water and the Water Cycle</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Week 2 September 12 <sup>th</sup>	<ul style="list-style-type: none"> <li>Water flow – Green and Blue Water</li> </ul>	<ul style="list-style-type: none"> <li>Water Follies Chapter</li> </ul>	<ul style="list-style-type: none"> <li>Discussion lead by Dr. Simcik</li> </ul>
Week 3 September 19 <sup>th</sup>	<ul style="list-style-type: none"> <li>Water Requirements</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 4 September 26 <sup>th</sup>	<ul style="list-style-type: none"> <li>Water Management</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 5 October 3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>Exam 1</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Week 6 October 10 <sup>th</sup>	<ul style="list-style-type: none"> <li>Water Quality Introduction</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 7 October 17 <sup>th</sup>	<ul style="list-style-type: none"> <li>Plant Tour</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Tour</li> </ul>
Week 8 October 24 <sup>th</sup>	<ul style="list-style-type: none"> <li>Plant Tour</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Tour</li> </ul>
Week 9 October 31 <sup>st</sup>	<ul style="list-style-type: none"> <li>Recap of plant Tours</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 10 November 7 <sup>th</sup>	<ul style="list-style-type: none"> <li>Exam 2</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Week 11 November 14 <sup>th</sup>	<ul style="list-style-type: none"> <li>History of Air Pollution</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 12 November 21 <sup>st</sup>	<ul style="list-style-type: none"> <li>Disciplinary Approaches to Air Pollution and Public Health</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 13 November 28 <sup>th</sup>	<ul style="list-style-type: none"> <li>Indoor Air Pollution</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 14 December 5 <sup>th</sup>	<ul style="list-style-type: none"> <li>Climate Change</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>
Week 15 December 12 <sup>th</sup>	<ul style="list-style-type: none"> <li>Global Issues</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>Discussions lead by students</li> </ul>

## SPH AND UNIVERSITY POLICIES & RESOURCES

The School of Public Health maintains up-to-date information about resources available to students, as well as formal course policies, on our website at [www.sph.umn.edu/student-policies/](http://www.sph.umn.edu/student-policies/). Students are expected to read and understand all policy information available at this link and are encouraged to make use of the resources available.

The University of Minnesota has official policies, including but not limited to the following:

- Grade definitions
- Scholastic dishonesty
- Makeup work for legitimate absences
- Student conduct code
- Sexual harassment, sexual assault, stalking and relationship violence
- Equity, diversity, equal employment opportunity, and affirmative action
- Disability services
- Academic freedom and responsibility

Resources available for students include:

- Confidential mental health services
- Disability accommodations
- Housing and financial instability resources
- Technology help
- Academic support

## EVALUATION & GRADING

[Enter a detailed statement of the basis for grading here. Include a breakdown of course components and a point system for achieving a particular grade. Include expected turnaround time for grading/feedback. Please refer to the University's Uniform Grading Policy and Grading Rubric Resource at <https://z.umn.edu/gradingpolicy>]

### Grading Scale

The University uses plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following, and you can expect the grade lines to be drawn as follows:

% In Class	Grade	GPA
93 - 100%	A	4.000
90 - 92%	A-	3.667
87 - 89%	B+	3.333
83 - 86%	B	3.000
80 - 82%	B-	2.667
77 - 79%	C+	2.333
73 - 76%	C	2.000
70 - 72%	C-	1.667
67 - 69%	D+	1.333
63 - 66%	D	1.000
< 62%	F	

- A = achievement that is outstanding relative to the level necessary to meet course requirements.
- B = achievement that is significantly above the level necessary to meet course requirements.

- C = achievement that meets the course requirements in every respect.
- D = achievement that is worthy of credit even though it fails to meet fully the course requirements.
- F = failure because work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I (Incomplete).
- S = achievement that is satisfactory, which is equivalent to a C- or better
- N = achievement that is not satisfactory and signifies that the work was either 1) completed but at a level that is not worthy of credit, or 2) not completed and there was no agreement between the instructor and student that the student would receive an I (Incomplete).

Evaluation/Grading Policy	Evaluation/Grading Policy Description
<p><b>Scholastic Dishonesty, Plagiarism, Cheating, etc.</b></p>	<p>You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis (As defined in the Student Conduct Code). For additional information, please see <a href="https://z.umn.edu/dishonesty">https://z.umn.edu/dishonesty</a></p> <p>The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: <a href="https://z.umn.edu/integrity">https://z.umn.edu/integrity</a>.</p> <p>If you have additional questions, please clarify with your instructor. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.</p> <p>Indiana University offers a clear description of plagiarism and an online quiz to check your understanding (<a href="http://z.umn.edu/iuplagiarism">http://z.umn.edu/iuplagiarism</a>).</p>
<p><b>Late Assignments</b></p>	
<p><b>Attendance Requirements</b></p>	
<p><b>Extra Credit</b></p>	

## CEPH COMPETENCIES

Competency	Learning Objectives	Assessment Strategies
Communicate audience-appropriate public health content	The student will be able to lead discussion of a water and/or air issue affecting Public Health of their own choosing to elicit participation by the class.	Degree to which the class is involved in the topic