

**Population Health/Environmental Studies 471: Introduction to Environmental Health**

3 Credits

Canvas: <https://canvas.wisc.edu/courses>

Level: Intermediate; Breadth Biological Sciences: L&S Credit Type C

Meeting Time and Location:

Tuesday and Thursday, 1:00-2:15

Location: 145 Birge

Two 75 minute lectures per week.

**How the Course Meets the Credit Hour Policy Standard**

The class meets two 75 minute periods each week over the spring semester and carries the expectation that students will work on course activities (reading, writing problem sets, studying, etc) for about 3 hours out of the classroom for every class period.

**Course Director:**

Marty S. Kanarek, Ph.D., M.P.H. Professor

Department of Population Health Sciences

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Also Professor in Gaylord Nelson Institute for Environmental Studies

Room 85 Science Hall

**Catalogue Course Description:** Impact of environmental problems on human health; biological hazards to human health from air and water pollution; radiation; pesticides; noise; problems related to food, occupation

and environment of the work place; accidents. Physical and chemical factors involved.

**Pre-Requisite:** A course in biology, Junior standing

### **Learning Outcomes**

- 1.** To understand the principles and practice of environmental health.
- 2.** To understand environmental health and its' history as a crucial aspect of the history of public health.
- 3.** To understand the U.S. and world health status and issues as background framework to environmental health.
- 4.** To get a brief introduction to the public health research methodologies including epidemiology and toxicology
- 5.** To understand crucial infectious and non-infectious disease principles as necessary to understand issues in environmental health.
- 6.** To understand the crucial environmental health topics (air, water, pesticides, etc.) necessary to get an overall comprehension of the field.

### **TEXTBOOK/READINGS**

#### **Textbook**

- Essentials of Environmental Health, Robert H. Friis, 3rd edition, Jones and Bartlett, 2018.

#### **Other readings:**

- Learn@UW Canvas will be maintained for student access to lecture powerpoints, 6 per page pdf of the powerpoints, and other course material including scientific journal articles, newspaper and magazine articles.
- A classlist email will be established for class messages from the Course Director

## **EVALUATION**

Participants enrolled for credit will be expected to attend class lectures. Grades will be based on two in-class tests and a class paper (5-10 pages).

- 1<sup>st</sup> Exam (40%)
- 2<sup>nd</sup> Exam (40%)
- Paper (20%)—due last class

## **ASSESSMENT AND GRADING**

The course grade will be based on two in-class exams and a course paper. The determination of your course grade will be as follows (if the categories below were to change, it would be in your favor):

Total Points	Letter Grade
90.0 - 100.0	A
85.0-89.9	AB
75.0 - 84.9	B
70.0 – 74.9	BC
60.0 – 69.9	C
50.0 – 59.9	D
<50.0	F

The distribution of points by assessment is as follows:

Assessment	Proportion
Exam 1	40%
Exam 2	40%
Course Paper	20%

## **ACADEMIC INTEGRITY**

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension.

Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to [studentconduct.wiscweb.wisc.edu/academic-integrity/](http://studentconduct.wiscweb.wisc.edu/academic-integrity/).

## **ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

**McBurney Disability Resource Center syllabus statement:** “The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.” <http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

## **DIVERSITY & INCLUSION**

**Institutional statement on diversity:** “Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.” <https://diversity.wisc.edu/>

### **Lecture Schedule**

Tu Jan 22 Introduction to Course and logistics (grading, readings, website, etc.)  
Public Health and Epidemiology

Th Jan 24 Toxicology and Risk assessment

Tu Jan 29 Non-Infectious Disease

Th Jan 31 Infectious Disease (**Sethi**, PHS)

Tu Feb 5 Population (**Raymo**, Sociology)

Th Feb 7 Lead

Tu Feb 12 POPs (**Anderson**, PHS)

Th Feb 14 Ambient Air Pollution

Tu Feb 19 Indoor Air Pollution

Th Feb 21 Solid Waste (**O'Leary**, Eng. Prof Dev.

Tu Feb 26 Water Supply (**Thompson**, Biol Sys Eng)

Th Feb 28 Wastewater Treatment (**Lawson**, Biol Sys Eng)

Tu Mar 5 Biomonitoring (**Werner**, DHS)

Th Mar 7 Foodborne Illness I (**Kaspar**, Food Res. Inst.)

Tu Mar 12 Foodborne Illness II (**Kaspar**, Food Res. Inst.)

Th Mar 14 Exam I

SPRING RECESS

Tu Mar 26 Climate Change (**Patz**, PHS GNIES)

Th Mar 28 "Before the Flood" **DeCaprio** Movie

Tu Apr 2 Pesticides I (**PJ Liesch**, Entomology)

Th Apr 4 Pesticides II (**PJ Liesch**, Entomology)

Tu Apr 9 Ionizing Radiation (**DeLuca**, Health Physics)

Th Ap 11 Mercury

Tu Ap 16 SHOW Study of the Health of Wisconsin (**Malecki**, PHS)

Th Ap 18 Fracking (**Thiboldeaux**, DHS)

Tu Ap 23 Asbestos in the Workplace and the Environment

Th Ap 25 Industrial Ecology (**P. Eagan**, Eng. Prof. Dev.)

Tu Ap 30 Firearm Epidemiology (**O'Brien**, Med College WI)

Th May 2 Exam II Papers due

