



Department of

Environmental & Civil Engineering

Mercer University

EVE 486/586 – REVISED...AGAIN

PUBLIC HEALTH

Fall Semester 2019

M, W, F

11 – 11:50

Room EGC 109

Instructor: André Butler, Associate Professor, Environmental Engineering
Office: Suite 116E, School of Engineering
Phone: 301-2476 (w)
Email: butler_aj@mercer.edu **Availability:** By appointment

Required Text: Moeller, Dade W. *Environmental Health*, Fourth Edition, Harvard University Press, 2011. **ISBN-13:** 978-0674047402.

Course Website: http://faculty.mercer.edu/butler_aj/eve486.htm

Catalog Description:

Public health engineering principles for protection against biological and chemical hazards. Emphasis on major communicable diseases that plague mankind, organisms that cause them, routes of transmission, and engineering methods of control. Appropriate control methods for rural areas and developing countries.

Course Objectives:

Upon successful completion of this course, students will be able to

1. Discuss in detail the issues relevant to local and global environmental health.
2. Apply toxicological and epidemiologic data to air, water, and soil environments.
3. Analyze and critique environmental health research papers and case studies.

Outcomes will be measured and assessed by grades earned for homework, exams, research paper critiques and discussion. In addition, primary instructor evaluation and student feedback on the perceived quality of the course will be used to make future improvements.

Prerequisites: (and/or corequisites)

Senior standing and EGR 252

Course Content:

- | | |
|-----------------------------------|--------------------|
| 1. Introductory concepts; Scope | 7. Standards |
| 2. Toxicology | 8. Monitoring |
| 3. Epidemiology | 9. Risk Assessment |
| 4. Indoor and outdoor air quality | 10. Disasters |
| 5. Drinking water issues | 11. Miscellaneous |
| 6. Solid and liquid waste issues | |

Grading: The final grade will be determined as follows:

Homework	10%	Distributed weekly
Exam #1	20%	Monday, Sept. 23, 2019
Project #1	10%	Wednesday, Oct. 16, 2019
Exam #2	20%	Monday, Nov. 4, 2019
Project #2	10%	Wednesday, Dec. 4, 2019
Final Exam	30%	Thursday, Dec. 12, 2019, 9–12:00 Noon

Homework:

Homework is an important component of the class and will be distributed regularly. Collaboration is acceptable, but each student must submit an individual assignment. Late homework assignments will not be graded.

Class Participation: Students are expected to attend class and participate during discussions.

Project:

Students will work in small teams to research a contemporary environmental public health problem. Each team will prepare a 15-minute Powerpoint presentation providing (1) a description of the problem, (2) analysis of data and results, and (3) major conclusions and recommendations. This is a flexible assignment; however, **teams are required to incorporate at least three different sources (scientific journals or magazines – no websites) into the presentation.**

Project #1 Teams (REVISED):

1. Southwick, Thaxton, Ton-Nu
2. McCarthy, Oh, Warner
3. Conlon, Dungan, Wissmach
4. Peña, Riddell
5. **Dornisch, Young**

Project #2 Teams (REVISED):

1. Ton-Nu, McCarthy, Riddell
2. Peña, Young, Warner
3. Dungan, Oh, Thaxton
4. Conlon, Southwick
5. **Dornisch, Wissmach**

Class Standards

1. Please turn off cell phones before entering the classroom.
2. Firearms/weapons are not allowed in Mercer University campus facilities. For more information, visit the MERPO website (<https://police.mercer.edu/>).
3. The **honor code** provisions as outlined in the *Bulletin* and in the student handbook, *The Lair*, will be assumed for everyone. It should be clear from class discussion whether an assignment is collaborative or individual. When in doubt, please ask to avoid potentially embarrassing situations. Plagiarism is a violation of the honor code and is strictly prohibited.
4. Students in need of accommodation due to a disability should contact the Access and Accommodation Office to complete the verification process to become approved for services. In order to receive accommodations, each term, students will request accommodation and faculty notification forms through the Access Office online system Accommodate. Students are strongly encouraged to schedule a meeting with each professor in a timely manner to discuss arrangements. Accommodations are not retroactive in nature. Note - Disability accommodations or status are not reflected on academic transcripts. Students with a history of a disability, perceived as having a disability or with a current disability who do not wish to use academic accommodations are also strongly encouraged to complete the verification process with the Access Office. Students must request accommodations in a timely manner to receive accommodations in a timely manner.
5. Mental Health and Wellness: Mercer University faculty and staff recognize that mental health concerns can impact academic performance and interfere with daily life activities. Please notify your faculty member or academic advisor for academic assistance, as needed. CAPS can also provide support if you're feeling stressed, overwhelmed, anxious, depressed, lost or are struggling with personal issues. Please call or visit the [Counseling and Psychological Services \(CAPS\) website](#) for more information. These services are free and confidential, and support non-traditional, graduate, and undergraduate students. Students at Regional Academic Center locations may call a CAPS Office for assistance in finding local services (that may charge for their services) if distance to either campus creates challenges. CAPS locations include: MACON – Linden House (attached to the MEP Residence Hall), 478-301-2862; ATLANTA – 215 Sheffield Student Center, 678-547-6060.
6. This syllabus is subject to change.

Electronic Communication: I will utilize your official Mercer email account.