# Western Kentucky University Department of Public Health Hazardous & Solid Waste (ENV 480) Spring 2024

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Office Hours: Monday - Friday 8:00 - 4:30

Course Material: Material will be posted on WKU's Blackboard

## **Recommended Textbook**

Basic Hazardous Waste Management by Blackman, W.C., Jr., Publisher: CRC Press LLC (2001), Boca Raton, Florida. 3rd Edition.

ISBN: 9781566705332.

All other material will be provided by the instructor through Blackboard.

### **Course Description**

Hazardous and Solid Wastes emphasizes on the identification and management of solid and hazardous wastes in the environment. Emphasis is on regulatory compliance, control and remediation technologies, and environmental pathways. It compromises those aspects of human health that are determined by interactions with solid and hazardous wastes of the global environment. This course surveys all aspects including the traditional, emerging and controversial issues associated with solid and hazardous wastes, while focusing on issues most relevant today.

### **Course Objectives**

- Become conversant in all aspects of solid and hazardous waste.
- Identify key regulatory information relating to solid and hazardous waste.
- Develop an understanding of the important solid and hazardous waste challenges students will face in their professional careers.
- Develop academic skills that include computer-aided literature searching, investigating a topic area of interest in solid and hazardous wastes, and preparing a presentation and written report.

### **Student Responsibilities and Assessments**

Participation in all course activities is expected and required of every student. There will be 10 quizzes that account for 200 points, 4 assignments that account for 100 points, a mid-term exam that accounts for 100 points and a final paper/presentation that accounts for 100 points. Additional assignments may

be added throughout the course if it is necessary. There also may be Discussion Boards throughout the semester.

### **Course Outline**

- 1. Introduction to Hazardous & Solid Waste Management
- 2. Fundamentals of Hazardous & Solid Waste Management
  - o Regulations
  - o Processes
  - o Fate & Transport
  - o Toxicology
- 3. Hazard Identification
- 4. Hazard Communication & MSDS
- 5. Identification of Hazardous Materials (ERG & DOT) Treatment & Disposal Methods
- 6. Toxicology & Environmental Site Assessment
- 7. Radiological & Mixed Wastes
- 8. Instrumentation & Site Characterization
- 9. Site Remediation
- 10. PPE & Respiratory Protection
- 11. Decontamination 12. Legislation & Federal Role
- 13. Planning for Municipal Solid Waste Management Programs
- 14. Source Reduction
- 15. Toxicity Reduction
- 16. Collection & Recycling

#### WKU COVID-19 Statement

All students are strongly encouraged to get the COVID-19 vaccine. Out of respect for the health and safety of the WKU community and in adherence with CDC guidelines and practices of all public universities and colleges in Kentucky, the University requires that a cloth face covering (reusable or disposable) that covers both the nose and mouth must be worn at all times when in public areas within all buildings. Students must properly wear face coverings while in class regardless of the room size or the nature of the classroom activities. Students who fail to wear a face covering as required will be in violation of the WKU Student Code of Conduct and will be asked to comply or will face disciplinary

action, including possible dismissal from the University. Accommodations can be requested in special cases through the Student Accessibility and Resource Center (SARC): 270-745-5004 (voice), 270-745-3030 (TTY), or 270-288-0597 (video). All students must immediately report a positive Covid-19 test result or close contact with a person who has tested positive to the Covid-19 Assistance Line at 270-745-2019. The assistance line is available to answer questions regarding any Covid-19 related issue. This guidance is subject to change based on requirements set forth by public health agencies or the office of the governor. Please refer to the Healthy on the Hill website for the most current information. <a href="https://www.wku.edu/healthyonthehill">www.wku.edu/healthyonthehill</a>.

## **Title IX Misconduct/Assault Statement**

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Sex and Gender-Based Discrimination, Harassment, and Retaliation (#0.070) and Discrimination and Harassment Policy (#0.2040). Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Deborah Wilkins, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

## ADA Accommodation Statement

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

# **Academic Offenses (As in WKU's Student Handbook)**

The maintenance of academic integrity is of fundamental importance to the University. Thus it should be clearly understood that acts of plagiarism or any other form of cheating will not be tolerated and that anyone committing such acts risks punishment of a serious nature.

#### **Academic Dishonesty**

Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without

possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure.

### **Plagiarism**

To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed 4 a few words is also plagiarism.

## **Cheating**

No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment or other project which is submitted for purposes of grade determination.

# **Other Types of Academic Dishonesty**

Other types of academic offenses, such as the theft or sale of tests, electronic transmission of test, test sharing, etc. will be reported to the Office of Judicial Affairs for disciplinary action