Course title and number: Environmental Toxicology  BIOL 4316-01

Instructor: Dr. Md Saydur Rahman, Ph.D. - Assistant Professor
Office Location: LHSC 2.812
Office Phone: 956-882-5041

Office Hours: Tue: 8:00 -11:30 am, 1:00 -2:30 pm
Email: md.rahman@utrgv.edu

Contract with Instructor: If you have any questions (e.g., lecture class, exam, grades, textbooks etc.) to the content of this course, please contact me via email (please use your UTRVG email), phone or come to my office. I will be most happy to assist you anytime (time permitting); however, it may be easiest to contact me during office hours.

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary
Textbooks: Suggested books/Journals:
Book: (1) Principles and Practice of Toxicology: Ira S. Marie M. Bourgeois, Publisher: Jones & Bartlett
Journals: (1) Environmental Toxicology, Publisher: Library; (2) Toxicological Sciences; Publisher: Oxford (online).

Readings: Supplemental reading materials or references will be provided.

Course rationale: This course will broaden the students' background and knowledge about the environmental toxicology.

Course objectives:
The overall aim of this course is to provide an undergraduate level introduction to the environmental toxicology. This course is designed to provide an overview of environmental toxicology, including an examination of the major classes of pollutants, their fate in the environment, their disposition in organisms, and their mechanisms of toxicity. An emphasis will also be placed on assessing the toxicity of pollutants in biological and environmental systems.

Learning objectives/outcomes:
1. Students will be able to define toxicokinetics
2. Students will be able to define toxicodynamics.
3. Students will be able to calculate the deterministic risk of a contaminant.

The instructor reserves the right to change or modify this syllabus as deemed necessary for the welfare of the class.

COURSE SCHEDULE/OUTLINE

Tentative Schedule and Subject to Change:
Week 1 (Aug 27): Interactions and Class Introduction
Week 1 (Aug 29): Toxicology and Its Roots as a Science
Week 2 (Sep 03): Labor Day Holiday
Week 2 (Sep 05): Chemical Properties and Hazardous Chemicals Information Recourses
Week 3 (Sep 10): Toxicity and Factors that Modify Toxic Responses
Week 3 (Sep 12): Biological Poisons: Plant and Animal Toxins
Week 4 (Sep 17): Environmental Pollutants and Their Fate
**Week 4 (Sep 19): Exam 1**
Week 5 (Sep 24): Toxicology Principles: Dose and Response
Week 5 (Sep 26): Absorptions of Toxins and Models of Disposition
Week 6 (Oct 01): Distribution, Storage, and Elimination of Toxicants
Week 6 (Oct 03): Biotransformation
Week 7 (Oct 08): Chemical Induced Mutagenesis
Week 7 (Oct 10): Chemicals and Cancer
Week 8 (Oct 15): Role of Immune System
**Week 8 (Oct 17): Exam 2**
Week 9 (Oct 22): Environmental Contaminants: Skin, Liver, and Kidney
Week 9 (Oct 24): Environmental Contaminants: Cardiovascular and Respiratory Systems
Week 10 (Oct 29): Environmental Contaminants: Nervous and Endocrine Systems
Week 10 (Oct 31): Practice of Toxicology
Week 11 (Nov 05): Regulatory Consideration
Week 11 (Nov 07): Toxicity Testing
Week 12 (Nov 12): Uses and Limitation of Product Labeling for Public Safety
**Week 12 (Nov 14): Exam 3**
Week 13 (Nov 19): Toxicology Principles and Management of Acute Poisonings
Week 13 (Nov 21): Risk Assessment and Perception of Risk
Week 14 (Nov 26): Making Informed Decisions
Week 14 (Nov 28): Review/Presentations
Week 15 (Dec 03): Review/Presentations
Week 15 (Dec 05): Review/Presentations
**Week 16: Final Exam on Monday December 10 at 10.15 am**

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**COURSE REQUIREMENTS**

**Instructional Methods:**
Lecture, discussion, and videos

**Activities:**
*Homework Assignments:* Homework may be assigned with specific instructions as well as a due date and time. Late homework will not be accepted. The value (percentage of your final grade) of each homework assignment will be set at the time of the assignment. I reserve the right to modify the schedule and assignments.
Scheduled Quizzes/Open Questions:
I reserve the right to administer scheduled quizzes/open questions.

Expectations:
● Be punctual and attend every lecture.
● Be attentive and participate in class discussions.
● Be respectful to classmates.
● Complete class assignments on time.
● Be punctual on exam day, complete the monthly exam including a comprehensive FINAL exam.
● Achieve an average grade of ≥60% according to the grading basis (please see below)

Grade Evaluations:
The grade will be based on performance in three exams, term papers, presentations, and class participation in class discussions.

Grade Basis:
1. Monthly exams (Exam 1, 2, 3, and Final): 60 points (60%)
2. Attendance/Participation: 10 points (10%)
3. Assignment/Term Paper: 15 points (15%)
4. Presentations: 15 points (15%)

Total 100 points
Missing exams will be counted as zeroes in the overall grade computation. I reserve the right to adjust your grade for violation of the minimum expectations.

Academic Integrity
Misconduct and plagiarism are violations of the student conduct code. Any suspected cases of academic misconduct will be handled according to UTRGV rules and regulations.

Absenteeism:
1. Each student will be placed on subject to a penalty of point off of their final grade for each unexcused absence. A tardy will count as 0.25 point per class of an unexcused absence.
2. Upon exceeding 4 unexcused absences, I reserve the right to administratively drop you from the class.

Grading Policies:
The following scale is adhered to strictly.
90.0 – 100% = A
80.0 - 89.9% = B
70.0 - 79.9% = C
60.0 – 69.9% = D
<60.0% = F

Calendar of Activities:
The UTRGV academic calendar can be found at http://my.utrgv.edu at the bottom of the screen, prior to login. Important dates for Fall 2018 include:

Aug 27 Fall classes begin
Aug 30 Last day to add a class or register for Fall classes
Aug 31 Last day to withdraw (drop all classes) for a 80% refund
Sept 3 Labor Day Holiday, no classes
Sept 10 Last day to withdraw (drop all classes) for a 70% refund
Sept 12 Census day (last day to drop without it appearing on the transcript)
Sept 17 Last day to withdraw (drop all classes) for a 50% refund
Course Specific Procedures:

Responsible Use of Technology Resources: It is expected that all students will only use laptop computer, iPAD, and other technology in class. Answering a cell phone, listening to music, texting, or using a laptop computer for unrelated matters to the course may be grounds for dismissal from class and/or other penalties. Students are not allowed to use video, nor audio recording devices of any kind during class time without prior consent of the instructor.

Students with Disabilities:

If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

Pregnancy, Pregnancy-related, and Parenting Accommodations

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Accessibility Services for additional information and to request accommodations.

Mandatory Course Evaluation Period:

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Online evaluations will be available Nov. 15 – Dec. 5. Students who complete their evaluations will have priority access to their grades.

Attendance:

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

Scholastic Integrity:

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.
Sexual Harassment, Discrimination, and Violence:
In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

Course Drops:
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

Student Service:
Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Students Services Center (U Central) for additional information. U Central is located in BMAIN 1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email (ucentral@utrgv.edu) or telephone: (888) 882-4026. In addition to financial aid, U Central can assist students with registration and admissions.

Students seeking academic help in their studies can use university resources in addition to an instructor’s office hours. University Resources include the Learning Center, Writing Center, Advising Center and Career Center. The centers provide services such as tutoring, writing help, critical thinking, study skills, degree planning, and student employment.

Locations are:
- Learning center: BSTUN 2.10 (Brownsville) or ELCTR 100 (Edinburg)
- Writing center: BLIBR 3.206 (Brownsville) or ESTAC 3.119 (Edinburg)
- Advising center: BMAIN 1.400 (Brownsville) or ESWKH 101 (Edinburg)
- Career center: BCRTZ 129 (Brownsville) or ESSBL 2.101 (Edinburg)

I have read and understand the information and UTRVG policies in this syllabus and will abide by those policies. YES____, NO____.

If your answer is NO, please explain why or ask any questions:

Your name: ________________________________________________________________, Student ID: ____________________________

Your signature: ____________________________________________________________, Date: ____________________________