INTRODUCTION TO TOXICOLOGY – BIMS 5327
DEPARTMENT OF LIFE SCIENCES
SUMMER 1 2015

A. COURSE INFORMATION

Course number/section: BIMS_5327_001
Class meeting time: MTWR 10:00-11:50AM
Class location: CI 122
Course Website: https://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION

Instructor: Dr. Felix Omoruyi
Office location: Center for Sciences 130B
Office hours: MW – 12:00 - 2:00 PM; R – 12:00 – 1:00 PM
Telephone: 825-2473
E-mail: felix.omoruyi@tamucc.edu
Appointments: N/A

C. COURSE DESCRIPTION

This course will provide the student with a basic introduction to the discipline of Toxicology. A combination of human, animal, systemic and environmental toxicology will be discussed. This course will introduce the students to basic functional processes like absorption rates, toxicokinetics, and factors that influence the ability to enhance or block absorption of toxicants. It will also introduce the students to synthetic toxicants as well as naturally occurring toxins and biotoxins, pharmacological toxicity and the risk of chemical exposure.

D. PREREQUISITES AND COREQUISITES

Graduate Students Only

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES


Supplies

You will need a scientific calculator.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.
The student will be able to:
1. Understand the types of exposure such as occupational, accidental and intentional and the pathological consequences.
2. Discuss the disposition of chemicals in the biological systems.
3. Discuss the toxicology of food additives and contaminants.
4. Understand the different types of pesticides, the various aspects of environmental pollution and poising with household products.
5. Understand testing of chemicals for toxicity and assessment of risk from chemicals.
6. Understand toxic responses of some organs and tissues.
7. Understand the basic mechanisms of pharmacological toxicity.

G. INSTRUCTIONAL METHODS AND ACTIVITIES
You will be provided with lecture notes. Instructional methods will include lecturing with discussion and problem solving.

H. MAJOR COURSE REQUIREMENTS AND GRADING
The final course grade will be based on three exams, attendance, problem portfolio, and literature review according to the following percentages:

1. Tests = 60 %
   Two examinations will be given during the course of the lectures and also the last exams at the listed time. Exam formats will be multiple choice questions.

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<tr>
<th>ACTIVITY</th>
<th>PERCENT OF FINAL GRADE</th>
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<tr>
<td>Exam 1</td>
<td>15 %</td>
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<td>Exam 2</td>
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<td>Exam 3</td>
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2. Problem Portfolio = 20 %
The problem portfolio will be made up of the student’s solutions to Toxicology related problems. All students are allowed to use information from in-class discussions in their portfolios. However, the portions of the problems not discussed in class are to be answered by each student individually without any help from anyone or anything other than cited sources. Each solution in the portfolio is to include references cited page that includes all sources consulted in answering the problem. On-line sources can be used, but students are cautioned to use credible scientific sites. Students also need to be aware that the sources cited will be checked against the student’s solution to make sure that the student’s answers are not plagiarized. Any plagiarism will result in a grade of 0 for that particular problem. The intent of having students complete the problems is to measure the level at which students are capable of understanding the information covered in class, and applying that information to solving toxicological problem. These assignments are in part about right and wrong answers, but also in part about the method at which the student arrives at particular solution.

3. Literature review = 20%
   • Students will be assigned articles to review and present to the class, and submit 1 page summary of their articles.
Grades
You are expected to read the material that corresponds to the objectives as they are covered. Mastering course objectives will require that you have read the material.

The following scale will be used to report grades:

- A 90 - 100
- B 80 - 89
- C 70 - 79
- D 60 - 69
- F below 60

Mon, June 01: Introduction to Toxicology and Syllabus Discussion
Tue, June 02: Disposition of Toxicants
Wed, June 03: Toxicokinetics
Thu, June 04: Types of Exposure

Mon, June 08: Toxic Responses
Tue, June 09: Toxic Responses
Wed, June 10: Pharmacologic Intoxicants and Exam I
Thu, June 11: Pharmacologic Intoxicants

Mon, June 15: Food Additives and Contaminants
Tue, June 16: Industrial Toxicology
Wed, June 17: Environmental Toxicology
Thu, June 18: Biotoxins

Mon, June 22: Pesticides
Tue, June 23: Toxicity Testing & Risk Assessment
Wed, June 24: Household Products and Exam II
Thurs, June 25: Forensic Toxicology

Mon, June 29: Regulatory Toxicology
Tue, July 03: Class Presentations and Review
Wed, July 01: Review
Thu, July 02: Exam III

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.
I. COURSE POLICIES

Attendance/Tardiness
Students are expected to attend all lectures. If you know in advance that you will miss an exam due to official University business, you must provide the Professor with official documentation of the absence at least fourteen days prior to missing. It is the student’s responsibility to obtain official documentation in timely fashion. Once the documentation has been verified, the Professor will decide how to handle the absence. In the overwhelming majority of cases, assignments and exams will be turned in or completed prior to the planned, official absence. Exams given outside regularly scheduled times may vary in format and content at the discretion of the faculty member. Absolutely nothing may be turned in late by anyone for any reason.

Late Work and Make-up Exams
There is no provision for making up late work and missed exams.

Extra Credit
There is no provision for extra credit

Cell Phone Use
No use of cell phone in class

Laptop Use
Only for assessing lecture notes posted on blackboard

Food in Class
No eating in class

Missed Exam
Unexcused absence during exams will result in a zero for that exam. It is the student’s responsibility to contact me in cases of extreme emergency. The only excused absences are personal illness, immediate family medical emergency, or attending funeral of immediate family.

J. COLLEGE AND UNIVERSITY POLICIES

- Academic Integrity (University)
  It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior.
  See Full University Policy at http://catalog.tamuc.edu/content.php?catoid=10&navoid=313#Academic_Integrity

- Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article
VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

- **Deadline for Dropping a Course with a Grade of W (University)**
The grade of W will be assigned to any student officially dropping a course by Friday, June 19, 2015. No student is eligible to receive a W without completing the official drop process by this deadline. Visit the Office of the University Registrar for the Course Drop Form that must be submitted. After June 19, 2015 a student will not be allowed to drop a course.

- **Grade Appeals (College of Science and Engineering)**
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
Disability Services (DS) is the hub for coordinating services and accommodations to ensure accessibility and utilization of all programs for all Texas A&M University-Corpus Christi students with disabilities. Our services are designed to meet the unique educational needs of enrolled students with documented permanent or temporary disabilities. DS provides intake and consultation services to students seeking to register with our office. DS reviews an individual’s documentation of disability and assesses eligibility for services and the determination of reasonable accommodations. For more information visit the Disability Services Office at 116 Corpus Christi Hall or go to http://disabilityservices.tamucc.edu/

K. **OTHER INFORMATION**
You are expected to read the material that corresponds to the objectives as they are covered. Mastering course objectives will require that you have read the material.

**GENERAL DISCLAIMER**
I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.