INTRODUCTION TO TOXICOLOGY – BIMS 4327  
DEPARTMENT OF LIFE SCIENCES  
SUMMER I 2017

A. COURSE INFORMATION

Course number/section: BIMS_4327_001  
Class meeting time: MTWR 10:00-11:50AM  
Class location: EN-108  
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: 361-825-2473  
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

BIOL1407 and CHEM1312 or CHEM1412  
Corequisites  
None

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.

By the end of this course, students should 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, problem solving and case studies.

H. MAJOR COURSE REQUIREMENTS AND GRADING

The final course grade will be based on four exams, problem portfolio, and a final exam according to the following percentages:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>20</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20</td>
</tr>
<tr>
<td>Problem Portfolio</td>
<td>20</td>
</tr>
<tr>
<td>Final</td>
<td>40</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
</tr>
<tr>
<td>B</td>
<td>80 - 89</td>
</tr>
<tr>
<td>C</td>
<td>70 - 79</td>
</tr>
<tr>
<td>D</td>
<td>60 - 69</td>
</tr>
<tr>
<td>F</td>
<td>below 60</td>
</tr>
</tbody>
</table>

I. COURSE CONTENT/SCHEDULE

May 30: Introduction to Toxicology and Syllabus Discussion
May 31: Disposition of Toxicants
June 01: Toxicokinetics
June 05: Types of Exposure

June 06: Toxic Responses
June 07: Toxic Responses
June 08: Pharmacologic Intoxicants and Exam I
June 12: Pharmacologic Intoxicants

June 13: Food Additives and Contaminants
June 14: Industrial Toxicology
June 15: Environmental Toxicology
June 19: Biotoxins

June 20: Pesticides
June 21: Toxicity Testing & Risk Assessment
June 22: Household Products and Exam II
June 26: Forensic Toxicology

June 27: Regulatory Toxicology
June 28: Review
June 29: 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.

J. 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 during lectures/exams

**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.

K. **COLLEGE AND UNIVERSITY POLICIES**

- **Academic Integrity (University)**  
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- **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. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must be submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day 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
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

Statement of Academic Continuity
In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be
operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. **OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**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.