Instructor: Dr. Zin-Min Tun  
Office Hours: Mon 11:00 am – 12:00 pm; Wed and Thurs 12:00 – 1:00 pm  
Office Location: Bowman Oddy Labs 2034  
Office Phone: 419-530-4591  
Email: zinmin.tun@utoledo.edu

COURSE/CATALOG DESCRIPTION
An introduction to basic chemistry and a survey of the impact that chemistry has on society. Topics include: power, energy, and fuels; water and pollution; soaps and detergents; nutrition; poisons and toxins; plastics and polymers; drugs.

COURSE OVERVIEW
This course is offered in order to provide you with a background in chemistry to allow you to understand and appreciate various aspects of chemistry that affect your life **EVERYDAY**. The aim is for you to be an informed consumer, an active patient as you interact with the medical community, and, in general a citizen who is better able to make decisions which have a scientific basis – especially on important environmental issues. This is a class for any non-science major – *so not for those whose major is science, medicine or engineering.*

STUDENT LEARNING OUTCOMES
Upon completion of this course, the student will be able to:
1. Explain the connection between your health and what you breathe.
2. Apply what you know about air pollution to ways of living that result in cleaner air.
3. Describe and characterize the ozone layer.
4. Discuss the interaction of radiation with matter.
5. Evaluate articles on green chemistry alternatives to ozone-depleting compounds.
6. Understand the different processes that take part in Earth's energy balance.
7. Evaluate how human activities contribute to global climate change.
8. Analyze, interpret, evaluate, and critique news stories on global climate change including graphical data.
9. Assess how fossil fuels, biofuels, and gasoline additives affect fuel economy, tailpipe emissions, human health, the environment, and sustainability issues.
10. Connect global climate change with the supply and demand of water.
11. Describe how green chemistry and its applications can contribute to clean water.
12. Summarize possible solutions to our global water challenges.
13. Explain the causes of ocean acidification and acid precipitation.
14. Compare and contrast chemical and nuclear reactions.
15. Assess the risks and benefits in regard to the use of nuclear power.
16. Describe ways in which food production connects to land use, water use, energy use, and issues of global climate change.
17. Describe ways to decrease the carbon footprint of food you eat.
TEACHING STRATEGIES

Lecture: Attendance is required, please arrive on time, and turn off your cell phone. You are responsible for all material, experiments, and problems covered in class. You will be provided with partial lecture outlines of the course material via Blackboard.

Textbook: We urge you to read the text before the lecture so you are familiar with concepts before hearing about them during the limited time of each class session.

Homework: We will be using the Connect Homework System. It is an online, web-based learning system that is packaged with your textbook. You need to have an access code to use it. A code is packaged in with the copies of your textbook at the UT bookstore. A problem set will be assigned for each chapter.

Problem sets will be posted in advance, feel free to work ahead. However, you must complete the assignments by the posted deadlines because I will not re-open the online homework assignment once the deadline passes!!

Additionally, I strongly encourage you to attempt the problems from the end of each chapter in your textbook until you are very familiar with that topic. If you are having difficulties working either the online HW assignments or the questions from the end of each chapter, you should either work with your classmates (a post on the discussion board of our class website on Blackboard is appropriate) or contact me.

PREREQUISITES AND COREQUISITES

We will use math to a modest degree including basic Algebra. It is recommended that you have achieved one or more of the following: passed a college algebra level math class (MATH 1320/1340/1750); a math ACT of 19 or above; a college algebra test score of 8 or above; elementary algebra test score of 10 or above; high school gpa of 3.00 or above.

REQUIRED TEXTS AND ANCILLARY MATERIALS


Online Homework Access Code: McGraw-Hill Connect/LearnSmart (Note: the ebook comes free with this required online homework access code) ISBN: 9781259920127; packaged with the textbook at the UT bookstore.

Calculator: Must have the ability to handle powers of 10.

The TECHNOLOGY REQUIREMENTS

Blackboard (https://blackboard.utdl.edu/webapps/login/) will be used on a regular basis in this course. Students need to have access to a properly functioning computer throughout the semester. Updated software is available from the Online Learning Download Center (https://www.utoledo.edu/dl/main/downloads.html). Use of Microsoft Word and PowerPoint (or the equivalent) will be required to present some course material.
UNIVERSITY POLICIES
Policy Statement on Non-Discrimination on the basis of Disability (ADA):
The University is an equal opportunity educational institution. Please read The University’s Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance.

ACADEMIC ACCOMMODATIONS
The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course please contact the Student Disability Services Office.

ACADEMIC POLICIES
Academic Dishonesty: The academic honesty policies, as stated in the UT Catalogue will be STRICTLY ENFORCED. Any student found violating the UT academic honesty policies – including (but not limited to) copying from someone else’s laboratory notebook, falsifying documents, plagiarism, will be penalized in accordance with these policies.

Copyright Notice: The materials in the course website are only for the use of students enrolled in this course for purposes associated with this course, and may not be retained or further disseminated.

Special Needs: The University is an equal opportunity educational institution. If you have special needs with respect to your participation in this course, please make an appointment to discuss this matter with the laboratory coordinator. The lab coordinator will work with you and the Student Disability Services to make appropriate accommodations for your needs.

Subject to Change: Any changes to the Syllabus will be announced in class, through Blackboard or your Rockets email.

COMMUNICATION GUIDELINES
As your instructor, I am here to help, and will do my best to respond to email within 24 to 48 hours. Please do not anticipate a response over weekends or holidays. Students are expected to check their UT email account and blackboard frequently for important course information.

COURSE EXPECTATIONS
1. Attendance is required for the lecture.
2. Read the textbook before the lecture, the schedule is listed below.
3. You are responsible for all material and problems covered in class.
4. Bring a calculator and periodic table to every class.
5. Cell phones should be turned off or put to silent.
6. Complete the assignments on time.
7. At a minimum answer the assigned homework questions. There are many problems found throughout the book that should be worked if you are having difficulty with a certain concept.
8. If you need extra help, see your instructor during office hours or use email. You will not be graded or judged based on the questions that you ask! Seek help in the Chemistry Help Center or the LEC.
**Chemistry and Society**
CHEM 1100-001
Fall 2018

**GRADING**
There will be three full period exams and a final exam. **THERE WILL BE NO MAKE-UP EXAMS.** Each exam will cover the material that is presented during the lectures in that portion of the course. The final exam will be comprehensive and cover all of the material presented during the semester. You are also required to do online HW and short assignments over some of the topics covered in the course.

**Course Points**
The following is the distribution of possible points in the course:

- Pre-lecture and online HW* 400 pts  
- Earnable Points* 150 pts 
- Midterm Exams 3 @ 100 points 300 pts  
- Final Exam 150 pts

**Total:** 1000 pts

*These categories will have extra points available to allow students a chance to reach the total points. However, points added to the total grade will not exceed total points for the category.

The grading scale for this class is:
- A = 900-1000 points  
- B = 800-899 points  
- C = 700-799 points  
- D = 600-699 points  
- F = below 600 points

Plus and minus grades will be set within these ranges.

**Drop, Withdrawal and Incomplete Grades**
Course drop and withdrawal procedures have been set by the University. Dropped courses do not appear on your transcript. The deadline for dropping is 9/11. You may withdraw from the course and receive a grade of W. The deadline for withdrawal is 11/3. W’s do not affect your GPA.

A course grade of **Incomplete** is given only to those who have completed all but a small percentage of course requirements for an acceptable reason.
# Tentative Course Schedule

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<tr>
<th>Week</th>
<th>Day</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>T</td>
<td>Intro</td>
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<td>Portable Electronics: The Periodic Table in the Palm of Your Hand (Ch. 1)</td>
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<td>The Air We Breathe (Ch. 2)</td>
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<td>8</td>
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<td>Water Everywhere: A Most Precious Resource (Ch. 8)</td>
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<td>R</td>
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**Final Exam**: T (Dec 11) 2:45 - 4:45 pm