Chem 1100 Chemistry and Society  
University of Toledo, College of Natural Sciences and Mathematics  
3 Credit Hours, Spring, 2018

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Email: Eric.Findsen@utoledo.edu  
Office Hours: TBA

Course Sections:  001

Required Text and Materials:
Text: Chemistry in Context: Applying Chemistry to Society, 9th Ed, Middlecamp et al

Calculator: It must have the ability to handle powers of 10 and the log function.

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 non-science majors – so not for those whose major is science, medicine or engineering.

Course Objectives
Because these subjects are most likely to be of interest to you, we will study Chapters 0-7 & 11.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Chemistry for a Sustainable Future</td>
</tr>
<tr>
<td>1</td>
<td>The Air We Breathe</td>
</tr>
<tr>
<td>2</td>
<td>Protecting the Ozone Layer</td>
</tr>
<tr>
<td>3</td>
<td>The Chemistry of Global Climate Change</td>
</tr>
<tr>
<td>4</td>
<td>Energy From Combustion</td>
</tr>
<tr>
<td>5</td>
<td>Water for Life</td>
</tr>
<tr>
<td>6</td>
<td>Neutralizing the Threats of Acid Rain and Ocean Acidification</td>
</tr>
<tr>
<td>7</td>
<td>The Fires of Nuclear Fission</td>
</tr>
<tr>
<td>11</td>
<td>Nutrition: Food for Thought</td>
</tr>
</tbody>
</table>

Upon completion of this course, you will be able to:
1. Have a basic understanding of the principles of Chemistry and how they impact our lives
2. Explain the connection between your health and what you breathe.
3. Apply what you know about air pollution to ways of living that result in cleaner air.
4. Describe and characterize the ozone layer.
5. Discuss the interaction of radiation with matter.
6. Evaluate articles on green chemistry alternatives to ozone-depleting compounds.
7. Understand the different processes that take part in Earth's energy balance.
8. Evaluate how human activities contribute to global climate change.
9. Analyze, interpret, evaluate, and critique news stories on global climate change including graphical data.
10. Assess how fossil fuels, biofuels, and gasoline additives affect fuel economy, tailpipe emissions, human health, the environment, and sustainability issues.
11. Connect global climate change with the supply and demand of water.
12. Describe how green chemistry and its applications can contribute to clean water.
13. Summarize possible solutions to our global water challenges.
14. Explain the causes of ocean acidification and acid precipitation.
15. Compare and contrast chemical and nuclear reactions.
16. 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 and Course Components
It highly recommended that you proceed in this order as it reflects the design of the course.

1. Read the chapter assignment from the text. Chapter 0 is in a single unit, but the other chapters are divided into two parts for convenience.
2. There will be short quizzes the beginning of most lectures on topics covered in the previous lectures.

Examinations
There will only three exams. Two hour exams given in class and a final exam. All chapters covered in this course will be on the final exam.

Prerequisites
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.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour Exam</td>
<td>200 pts</td>
</tr>
<tr>
<td>In class quizzes</td>
<td>50 pts</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>50 pts</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200 pts</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500 pts</strong></td>
</tr>
</tbody>
</table>

Grade Scale
These are the minimum percentages of total points needed to receive the indicated grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93%</td>
</tr>
<tr>
<td>A-</td>
<td>90%</td>
</tr>
<tr>
<td>B+</td>
<td>87%</td>
</tr>
<tr>
<td>B</td>
<td>83%</td>
</tr>
<tr>
<td>B-</td>
<td>80%</td>
</tr>
<tr>
<td>C+</td>
<td>77%</td>
</tr>
<tr>
<td>C</td>
<td>73%</td>
</tr>
<tr>
<td>C-</td>
<td>70%</td>
</tr>
<tr>
<td>D+</td>
<td>67%</td>
</tr>
<tr>
<td>D</td>
<td>63%</td>
</tr>
<tr>
<td>D-</td>
<td>60%</td>
</tr>
</tbody>
</table>

Students are expected to complete and submit all assignments and the final exam by the due date listed in the master course schedule. Late assignments and a make-up final will not be permitted unless arrangements are discussed and approved well before the required due date. Ask questions as soon as possible by email or by phone if you do not understand an assignment.
Technical Skills
To succeed in this course, it will be important for you to possess the following technical skills:

1. Rename, delete, organize, and save files.
2. Create, edit, and format word processing and presentation documents.
3. Copy, paste, and use a URL or web address.
4. Download and install programs and plug-ins.
5. Send and receive email with attachments.
6. Locate and access information using a web search engine.
7. Use chat or IM software for real-time communication.
8. Use a learning management system.
9. Use a basic calculator.

Technology Requirements
Browser Check Page
Students need to have access to a properly functioning computer throughout the semester. The Browser Check Page will enable you to perform a systems check on your browser, and to ensure that your browser settings are compatible with Blackboard, the course management system that hosts this course.

Software
Student computers need to be capable of running the latest versions of plug-ins, recent software and have the necessary tools to be kept free of viruses and spyware. The computer needs to run the following software, available in the Online Learning Download Center.

- Word Processing Software
- Adobe Acrobat Reader
- Apple QuickTime Player
- Java Plugin Console
- Adobe Flash Player
- Adobe Shockwave Player
- Mozilla Firefox Browser - Recommended

Internet Service
High-speed Internet access is recommended as dial-up may be slow and limited in downloading information and completing online tests. This course does contain streaming audio and video content.

Use of Public Computers
If using a public library or other public access computer, please check to ensure that you will have access for the length of time required to complete tasks and tests. A list and schedule for on-campus computer labs is available on the Open Lab for Students webpage.

UT Virtual Labs
Traditionally, on-campus labs have offered students the use of computer hardware and software they might not otherwise have access to. With UT's Virtual Lab, students can now access virtual machines loaded with all of the software they need to be successful using nothing more than a broadband Internet connection and a web browser. The virtual lab is open 24/7 and 365 days a year at VLAB: The University of Toledo's Virtual Labs.

System requirements for McGraw-Hill Connect
"Check My Computer" is available at https://mhdemo.simnetonline.com/sp/?v=2#requirements
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**Browser Required:**  
FireFox v12+, Internet Explorer v9+, Chrome v18+, Safari v5+

**Browser Recommended:**  
FireFox v23+, Internet Explorer v10+, Chrome v28+, Safari v6+

**Americans With Disabilities Act**  
The Americans with Disabilities Act (ADA) requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. In accordance with the ADA and university policy, if you have a documented disability and require accommodations to obtain equal access in this course; please contact me to discuss any necessary accommodations and contact Student Disability Services for verification of eligibility at 419-530-4981 (voice) or 419-530-2612 (TDD).

**Communication Guidelines**

**Email:** Students are expected to check their UT email account frequently for important course information. You should regularly check the Discussion Board and the Course Messages files for new entries. This class is being taught for you, so if you are having trouble understanding any aspect of it, please let me know. I am here to help, and will do my best to respond to email within 24 to 48 hours.

**Discussion:** In this online course, participation is vital to your success, and your active engagement during discussion is crucial to learning. You are encouraged to work together with other students and with me to be successful in this course. Never post answers on the discussion board.

**Netiquette:** It is important to be courteous and civil when communicating with others. Students taking online courses are subject to the communication regulations outlined in the Student Handbook. To ensure your success when communicating online, take time to familiarize yourself with the “dos" and "don'ts" of Internet etiquette.

**Course Policies**

**Drop, Withdrawal and Incomplete Grades**  
Course drop and withdrawal procedures have been set by the University faculty. *Dropped* courses do not appear on your transcript. The deadline for dropping is 9/7. If you are in a course after that date, there will be a grade on your transcript. You may *withdraw* from the course and receive a grade of *W*. The deadline for withdrawal is 10/30. *W* grades do not affect your GPA. You do not need your instructor’s permission for either process. Please note that course registration changes might change your financial aid.

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. If you have a serious problem near the end of the course, communicate with me as soon as possible. You will retain all of your previously determined grades.

**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.  
**Academic Dishonesty:** You are urged to refer to the university’s policy on Academic Dishonesty in the university catalogue. Violation of this policy can result in a course grade of *F* with additional university sanctions possible.
**Technical Support**

If you encounter technical difficulties with Blackboard, please contact the UT Online Help Desk** at (419) 530-8835 or utdl@utoledo.edu. The Help Desk offers extended hours in the evenings and on weekends to assist students with technical problems. When calling after hours, leave a detailed message, including your Rocket Number and phone number, and an Online Learning staff member will respond on the next business day. The UT Online Help Desk website is available at: http://www.utoledo.edu/dl/helpdesk/index.html

**Technical questions related to on-campus Internet access, virtual labs, hardware, software, personal website hosting, and UTAD account management can be directed to UT's IT Help Desk** at (419) 530-2400 or ithelpdesk@utoledo.edu. The IT Help Desk website is available at http://www.utoledo.edu/it/CS/HelpDesk.html.

**Learner Support**

The University of Toledo offers a wide range of academic and student support services that can help you succeed:

**eTutoring Services**

The Ohio eTutoring Collaborative, in partnership with The University of Toledo, now provides online tutoring support for all UT students. eTutoring Services are offered in a wide array of subjects, including Writing, Math, Calculus, Statistics, Accounting, Biology, Chemistry, and Anatomy and Physiology.

**eLibrary Services Portal**

The eLibrary is a customized gateway to UT Libraries for online students. It was designed to help you locate the best online library resources without leaving Blackboard.

**Student Disability Services**

Student Disability Services provides accommodations and support services to students with disabilities.

**Counseling Center**

The Counseling Center is the university's primary facility for personal counseling, psychotherapy, and psychological outreach and consultation services. The Counseling Center staff provide counseling (individual and group), mental health and wellness programming, and crisis intervention services to help students cope with the demands of college and to facilitate the development of life adjustment strategies.

**Services for Online Students**

Knowing what to do, when to do it, and who to contact can often be overwhelming for students on campus - even more so for distance learners. Visit the Resources for Current Students webpage to learn more about the wide range of services for online students.