



**CHEM 1100: Chemistry and Society  
(Section 001, Fall 2021)**  
**University of Toledo, Department of Chemistry and Biochemistry  
College of Natural Sciences and Mathematics**

---

<b>Instructor:</b>	Dr. Joanna P. Hinton	<b>Offered:</b>	Fall 2021
<b>Email:</b>	Joanna.hinton@utoledo.edu	<b>Course Website:</b>	<a href="#">Blackboard Learn</a>
<b>Office Hours:</b>	By appointment	<b>Class Location:</b>	FH 2920
<b>Office Location:</b>	WO	<b>Class Day/Time:</b>	TR 2:20 – 3:40 pm
<b>Instructor Phone:</b>		<b>Credit Hours:</b>	3

---

**SPECIAL COURSE EXPECTATIONS DURING COVID-19**

Maintaining a safe campus during the ongoing COVID-19 pandemic remains a top priority. UToledo continues to follow the guidance of the U.S. Centers for Disease Control and Prevention and Ohio Department of Health to keep our campus safe.

**ATTENDANCE**

The University of Toledo has a missed class policy. It is important that students and instructors discuss attendance requirements for the course. Before coming to campus each day, students should take their temperature and complete a self-assessment for symptoms of COVID-19, such as cough, chills, fatigue or shortness of breath. Anyone with a temperature at or above 100.0 degrees Fahrenheit or who is experiencing symptoms consistent with COVID-19 should not come to campus and should contact their primary care physician or the Main Campus Health Center at 419.530.3451 or Health Science Campus Student Health and Wellness Center at 419.383.5000. For more information on the symptoms of COVID-19, please go to <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

COVID-19 testing for sick students is available on both Main Campus and Health Science Campus. Call 419.383.4545 for an appointment. Absences due to COVID-19 quarantine or isolation requirements **are** considered excused absences. Students should notify their instructors and follow the protocols summarized in this document on [Navigating COVID-Related Course Concerns](#).

In the event that you have tested positive for COVID-19 or have been diagnosed as a probable case, please review the [CDC guidance](#) on self-isolation and symptom monitoring, and report the disclosure to the Division of Student Affairs by emailing [StudentAffairs@utoledo.edu](mailto:StudentAffairs@utoledo.edu) or by connecting with their on-call representative at 419.343.9946. Disclosure is voluntary and will only be shared on a need to know basis with staff such as in the Office of Student Advocacy and Support, The Office of Residence Life, and/or the Office of Accessibility and Disability Resources to coordinate supportive measures and meet contact tracing requirements.

**FACE COVERINGS**

Face coverings are required while on campus, except while eating, alone in an enclosed space, or



outdoors practicing social distancing. Students will not be permitted in class without a face covering. If you have a medical reason preventing you from wearing a face covering due to a health condition deemed high-risk by the CDC, submit an [online application](#) to request an accommodation through the Office of Accessibility and Disability Resources. Students will need to provide documentation that verifies their health condition or disability and supports the need for accommodations. Students already affiliated with the Office of Accessibility and Disability Resources who would like to request additional accommodations due to the impact of COVID-19, should contact their accessibility specialist to discuss their specific needs. You may connect with the office by calling 419.530.4981 or sending an email to [StudentDisability@utoledo.edu](mailto:StudentDisability@utoledo.edu).

### VACCINATION

Doctors and other health care professionals agree that the best way to protect ourselves and each other is to get vaccinated. Case data clearly show that vaccines remain highly effective at preventing serious illness from COVID, including the highly contagious delta variant. If you have not yet received your COVID vaccine, the University encourages you do so as soon as possible. No appointment is needed to get the shot at the UTMC Outpatient Pharmacy, University Health Clinic or Main Campus Pharmacy. Once you receive the COVID vaccination, please register on the COVID Vaccine Registry site at: <https://utvaccinereg.utoledo.edu/>.

### SPECIAL NOTES

It's important to note, that based on the unpredictability of the COVID-19 virus, things can change at any time. So please be patient and understanding as we move through the semester. Please refer to <https://www.utoledo.edu/coronavirus/> on a regular basis for updates to current requirements or mandates. I also ask that you keep me informed of concerns you may have about class, completing course work/assignments timely and/or health concerns related to COVID.

---

### CATALOG/COURSE DESCRIPTION\*

**CHEM 1100:** 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/ TEACHING METHODOLOGY

In this course, students will be acquainted with the fundamental concepts of chemistry and learn to relate these concepts to chemical issues that affect students' own daily lives. "Chemistry in Context" reveals the chemistry behind our air, water, fuels, foods, plastics, cosmetics, medicines, and a host of other substances and products we use in our everyday lives. By examining the materials of our everyday lives using the science of chemistry as a foundation, students will learn how the science of chemistry operates and gain useful insights into what these common substances are and how they work. **This is a class for any non-science major – so not for those whose major is science, medicine or engineering.**

This class is taught in twice-a-week 80 minute face-to-face lectures (required attendance) and supplemented with on-line homework and studying tools (McGraw Hill CONNECT® and LearnSmart and e



textbook with embedded videos), in class group work, quizzes/exams (either online or in class) and a final group project presentation.

### **Course Components:**

**Lectures** – Two 80 minute lectures will be given each week. At the start of each class period reading will be assigned for the following period. You will be expected to have read the chapter prior to coming to class. You should review the lecture notes as soon as possible after class and also before the next lecture. You are encouraged to ask questions during the lecture. Only a questioning mind can learn. Group activities will also be included during some lectures.

### **SmartBook® assignments on CONNECT:**

CONNECT® Chemistry (CONNECT) hosts course instruction materials.

Smartbook is an adaptive reading experience that will create a personalized learning path based on your understanding of the material within the book. In this class, Smartbook will be required for 20% of your grade. These assignments are meant as a way to get you into the reading and make sure you have mastery of the most important concepts I have specifically selected throughout each chapter. The goal is simply to do the reading and answer the questions as honestly as possible. By doing so the program will adapt to ask you the next questions you are prepared to learn based on your comprehension. There is no penalty for getting a question wrong and by answering honestly SmartBook will also show you the specific concepts you are struggling with as well. Smartbook is designed to let you complete them up until the due date and can be accessed as many times as you want. I have also set each one to take on average approximately 30-45 minutes although they may take more if you have not read or are having a hard time understanding the materials. I am also giving you generally a 2 week window for completion so my expectation is that you are budgeting your time accordingly in order to make sure you receive full credit for completion. Ideally it makes sense for you to read the assignments and work on SmartBook prior to coming to lecture.

### **Online homework assignments on CONNECT®:**

These assignments are to demonstrate you can apply your knowledge and practice the skills and content presented in class and in the textbook reading. They are primarily based on the end-of-chapter questions. Doing all assigned problems is essential to success in this course. Complete these assignment after attending lecture and finishing SmartBook assignments. You will have 3 chances over several days to provide the correct answers. There is no grade penalty for using all 3 attempts. For full credit you must complete it correctly by the deadline. Connect Assignments will be required for 20% of your grade.

### **Exams:**

There will be two midterm exams and a final exam; each worth 75 pts. THERE WILL BE NO MAKE-UP EXAMS. You may drop your lowest exam grade of the 3 exams. A missed exam will be counted as your grade to be dropped. A second missed exam will be counted as a zero. Each exam will cover the material that is presented during the lectures in that portion of the course. The final exam will primarily focus on the material that is presented in last third of course (including material from group presentations) yet is comprehensive because much of the material and chemistry builds on itself. Exams will account for 20% of your grade.

**Group final presentation:** You will work in a group of up to 4 students to investigate, prepare, and present a PowerPoint project/presentation on a socially relevant chemistry topic. You & your group will



have the option to choose a topic according to your own interests among several provided topics or you may suggest your own (but this will have to be approved). Presentations (10 min) will be scheduled during the last several lecture periods of the class; multiple presentations may occur during a lecture class. Material covered in these presentations may appear as questions in the final exam. Each group will also be required to submit the PowerPoint slides to me on date of group presentation. More details and rubric will be provided.

### **STUDENT LEARNING OUTCOMES\***

Upon completion of this course, you will be able to:

- Understand and define basic chemical terms, organization of the periodic table and classify metals, metalloids, and non-metals in terms of electrical conductivity
- Explain the connection between your health and what you breathe.
- Apply what you know about air pollution to ways of living that result in cleaner air.
- Describe and characterize the ozone layer.
- Analyze, interpret, evaluate, and critique graphical data, illustrations and diagrams for a variety of topics
- Discuss the interaction of radiation with matter.
- Understand the different processes that take part in Earth's energy balance.
- Evaluate how human activities contribute to global climate change.
- Assess how fossil fuels, biofuels, and gasoline additives affect fuel economy, tailpipe emissions, human health, the environment, and sustainability issues.
- Evaluate how human activities contribute to the formation of acid rain.
- Connect global climate change with the supply and demand of water
- Describe how green chemistry and its applications can contribute to clean water.
- Summarize possible solutions to our global water challenges.
- Compare and contrast chemical and nuclear reactions.
- Assess the risks and benefits in regard to the use of nuclear power.
- Summarize the social, environmental, and economic costs of recycling energy devices.
- Describe polymers and their applications in your everyday life
- Describe ways in which food production connects to land use, water use, energy use, and issues of global climate change.
- Describe ways to decrease the carbon footprint of food you eat.
- Describe the importance of protein in diet and nutrition, and the importance of enzymes in their digestion
- Explain basics of genetic engineering and its impact on chemical and agricultural industry and medicine

### **PREREQUISITES AND COREQUISITES\***

NONE. This course is for NON-Science Majors.

### **TEXTS AND ANCILLARY MATERIALS\***

This course is part of the inclusive access program. You would have purchased your textbooks (thus access) as part of your tuition. Thus, you have already paid for access to the following items which can be accessed directly through Blackboard:



- An electronic copy of the textbook, Fahlman et al, *Chemistry in Context: Applying Chemistry to Society*, 10th Ed, published by McGraw-Hill Higher Education
- McGraw-Hill Higher Education CONNECT: This includes SmartBook and HW Assignments.

## TECHNOLOGY REQUIREMENTS

**Blackboard** (<https://blackboard.utdl.edu/webapps/login/>) (Bb) and **CONNECT** (available through the Blackboard course) will be used on a regular basis in this course. Students need to have access to a properly functioning computer throughout the semester. 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. Updated software is available from the [Online Learning Download Center](https://www.utoledo.edu/dl/main/downloads.html) (<https://www.utoledo.edu/dl/main/downloads.html>).

## ACADEMIC POLICIES\*

All students at the University of Toledo are expected to read, understand, and follow the academic policies that govern their attendance at the University. These policies include, but are not limited to, academic dishonesty, academic forgiveness, adding and dropping a course, grades and grading, and the missed class policy. Please use the following URL to read a comprehensive list of academic policies that pertain to you in this class and throughout your academic journey:

[Undergraduate Policies: http://www.utoledo.edu/policies/academic/undergraduate/](http://www.utoledo.edu/policies/academic/undergraduate/)

**Academic Dishonesty: 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. You will be required to formally acknowledge the terms of our Academic Honesty Statement, by providing a statement through our Blackboard course page.**

### 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.

**Examination Policies:** *Make-up exams will not be given. (See Teaching Methodology, Exams above)*

**Exam Absence Policies:** Students who will not be able to take an exam at the scheduled time due to an irresolvable conflict must provide **written** documentation to verify the conflict. This may occur for students on official university business. The exam will be given at another arranged time **before** the scheduled test date. *Approval must be obtained in advance.*

Students who unexpectedly miss an exam due to illness, car accident or similar **extreme** circumstance should inform their instructor *ASAP*. **Documentation** such as a physician's note, an accident report, etc. is required and must be attached to an **Absence Report Form** (obtained from BO 2022). An email to the instructor and a telephone call within 24 hours is expected. In all other cases a missed exam will result in 0 on the exam.

**Absences due to COVID-19 quarantine or isolation requirements are considered excused absences.** Students should notify their instructors.



## COURSE EXPECTATIONS

1. Follow all University Covid-19 Safety Policies
2. Check Blackboard and your UT email every day.
3. Attendance is required for the lecture.
4. Read the textbook before the lecture and complete SmartBook assignment by due dates
5. You are responsible for all material covered in class.
6. You are to participate in class discussions and group activities.
7. CONNECT online homework assignments have to be completed before the deadline.

8. **Amount of Work Expected of Students**

The Ohio Board of Regents (OBOR) specifies that students will be expected to work at out-of-class assignments on a regular basis which, over the length of the course, would normally average two hours of out-of-class study for each hour of formal class activity. This out-of-class study shall not be counted as part of the classroom hour for credit purposes. **This means that students should expect to spend at least six (6) hours of reading/studying/preparing assignments outside of class each week for a three (3) credit course.**

9. **Professional Behavior**

All of us must conduct ourselves in a manner that is conducive to learning for everyone (i.e., professional). When teaching or working with others, we expect them to listen to us. When we ask questions or engage in class discussion, we expect others to listen to us. Others expect the same from us.

The following are examples of responsible professional behavior and irresponsible professional behavior. They are presented as examples and not as complete, exhaustive lists.

Examples of Responsible Behaviors:

- Attending class If a class is missed, for any reason, students are responsible for all material covered and announcements made in their absence. Class interaction is considered if there is a question regarding lowering or raising the final grade from the numerically calculated final grade. Obviously, not attending class prevents observable, positive class interaction.
- Being on time and remaining for the entire class
- Demonstrating an understanding of assignments by using appropriate psychological concepts to explain or justify comments
- Thoughtful and effortful completion of assignments
- Active, enthusiastic participation in class discussion and activities, including asking thoughtful questions
- Responding to other students' comments in a reasonable and constructive manner

Examples of Irresponsible Behaviors

- Physical presence, but cognitive absence (e.g., surfing the web, text messaging, tweeting, blogging, "off in space," sleeping, dozing off, etc.) Unless there is an appropriate reason (e.g., medical issue, someone is traveling) for them to be on, pagers, mobile phones, iPods, etc., are to be turned off. If there is an appropriate reason for them to be on, then they are to be in vibrate only mode. PDA's, electronic tablets, smartphones, and laptops may be used to



take notes. They are not to be used for surfing the web, text messaging, tweeting, blogging, etc.

- Arriving late or leaving early
- You may record the class. However, please notify the other students and me that you are recording the class. Everyone has a right to know they are being recorded.
- Non-constructive responses to the comments of others
- Physical, intellectual, and/or emotional bullying There are differences between an intellectual disagreement and behaviors that denigrate, humiliate, etc. (i.e., bully), the individual(s) with whom one has a disagreement. Such behaviors are usually intentional, persistent, and hostile. They include snide comments (e.g., name calling, insults), “rolling the eyes,” hand gestures, turning the body, “looking down one’s nose” at someone, mimicking/mockng a classmate, ostracizing or attempting to get others to consistently ignore a classmate, etc. These behaviors will not be tolerated, and will negatively affect a final grade, or, in severe cases, result in a student being removed from the class, and possibly the course.

### OVERVIEW OF COURSE GRADE ASSIGNMENT\*

It is a very high priority to your instructor to ensure fairness and equity in all grading aspects of the course. There is nothing about this class that requires a certain number of students to get a certain grade. A curve is not used, so every one of you can achieve the grade that you are willing to earn!

Course Points The following is a breakdown of the distribution of possible points/percentages in the course:

Category	Points (tentative)	Percent toward final grade
SmartBook (online) <sup>°</sup>	150	20 %
CONNECT HW Assignments (online) <sup>°</sup>	150	20%
Exams: 2 midterms + 1 final	Each worth 75 points Lowest exam dropped For total of 150 possible points	20 %
Final Group Presentation	150	20 %
Participation & Attendance <sup>°</sup>	150	20 %
Total	750	100%

<sup>°</sup> These categories will likely 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 (percentage) for a category. In the event that points offered in a given category do not reach the indicated 150 pts, then point adjustments will be made to ensure correct percentage contribution toward point total.



### Midterm Grading\*

Midterm grades are typically assigned the 8th week of class and are used to assist students with determining their academic standing. Attendance is also recorded during the 8th week to meet state and federal laws regarding financial aid disbursement. Please note, if you are not attending class, it could affect your financial aid (scholarships, grants, loans or Federal Work Study). If you decide you are not going to attend this class (or any other class you have registered for), you must formally withdraw (drop) from the course. You can do this by logging onto the myUT portal, clicking on the "Student" tab, and then under "My Toolkit" click on Register/Drop/Withdraw.

### Final Grading\*

The planned grading scale for this class is as follows:

Letter	Percent	Points based on 750
A	> 89%	> 668
B	75 – 89%	562 - 667
C	60 – 74%	450 - 561
D	50 – 59%	375 - 449
F	< 50%	< 375

This grading scale is expected. However, it is possible, at instructor's discretion, to lower the minimum number of points required for a given grade. Furthermore, "+" and "-" grades will be assigned to adequately reflect border- line scores.

***Drop, Withdrawal and Incomplete Grades Course procedures have been set by the University. Dropped courses do not appear on your transcript. The deadline for dropping is Monday, September 13. You may withdraw from the course and receive a grade of W. The deadline for withdrawal Friday, November 5. W's do not affect your GPA.***

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

### UNIVERSITY POLICIES\*

Federal law requires the university to have an Institutional Attendance Policy that requires faculty to track student participation by the census date, which varies for each POT, these dates can be found here: <https://www.utoledo.edu/offices/provost/mandatory-attendance-tracking.html>, for federal financial eligibility and disbursement.

#### **Institutional Classroom Attendance Policy (Fall and Spring Statement)**

Please be aware that the university has implemented an attendance policy, which requires faculty to verify student participation in every class a student is registered at the start of each new semester/course. For this course, if you have not attended/participated in class (completed any course activities or assignments) within the first 14 days, I am required by federal law to report you as not attended. Unfortunately, not attending/participating in class impacts your eligibility to receive financial aid, so it is VERY important that you attend class and complete course work in these first two weeks.





Please contact me as soon as possible to discuss options and/or possible accommodations if you have any difficulty completing assignments within the first two weeks.

**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](#). Students can find this policy along with other university policies listed by audience on the [University Policy webpage](#) (<http://www.utoledo.edu/policies/audience.html/#students>).

**Academic Accommodations\*** The University of Toledo embraces the inclusion of students with disabilities. We are committed to ensuring equal opportunity and seamless access for full participation in all courses. For students who have an Accommodations Memo from the Office of Accessibility and Disability Resources, I invite you to correspond with me as soon as possible so that we can communicate confidentially about implementing accommodations in this course.

For students who have not established accommodations with the Office of Accessibility and Disability Resources and are experiencing disability access barriers or are interested in a referral to health care resources for a potential disability, please connect with the office by calling 419.530.4981 or sending an email to [StudentDisability@utoledo.edu](mailto:StudentDisability@utoledo.edu).

#### **ACADEMIC AND SUPPORT SERVICES\***

Please follow this link to view a comprehensive list of [Student Academic and Support Services](#) (<http://www.utoledo.edu/studentaffairs/departments.html>) available to you as a student

#### **SAFETY AND HEALTH SERVICES FOR UT STUDENTS\***

Please use the following link to view a comprehensive list [Campus Health and Safety Services](#) available to you as a student.

#### **INCLUSIVE CLASSROOM STATEMENT**

In this class, we will work together to develop a learning community that is inclusive and respectful. Our diversity may be reflected by differences in race, culture, age, religion, sexual orientation, gender identity/expression, socioeconomic background, and a myriad of other social identities and life experiences. We will encourage and appreciate expressions of different ideas, opinions, and beliefs so that conversations and interactions that could potentially be divisive turn, instead, into opportunities for intellectual and personal development.

#### **COURSE SCHEDULE**

The following table will give you a general idea of our pace throughout the course. Exams will occur on the dates indicated below. Material covered on each exam will be dependent on the pace of the class and will be specified in lecture prior to each exam.



## CHEM 1100: Chemistry & Society

Dr. Joanna Hinton

Fall 2021 Tues & Thurs 2:20 -3:40 pm FH 2920

### TENTATIVE SCHEDULE for Lectures and Exams

WEEK	DATES	TOPIC	NOTES
1	Aug 30 – Sept 3	INTRO & Ch 1: Portable Electronics & Periodic Table	Register to CONNECT on Bb
2	Sept 6 – 10	PT & Air	
3	Sept 13 – 17	Radiation from the Sun	Mon Sept 13 – Last Day to Drop Class
4	Sept 20 – 24	Climate Change	Prof A. Jorgensen – Guest Lecturer
5	Sept 27 – Oct 1	WATER	TBA: Water Guest Lecturer
6	Oct 4 – 8	Energy	
7	Oct 11 -13	Energy & Exam 1	Tuesday Oct 12- Exam 1
<b>FALL BREAK</b>	<b>Oct 14- 15</b>	<b>NO CLASSES</b>	
8	Oct 18 – 22	Energy	
9	Oct 25 – 29	Polymers	
10	Nov 1 – 5	Food & Nutrition	Fri Nov 5 – Last Day to Withdraw from Class
11	Nov 8 – 12	SCOPE	Tues Nov 9 –SCOPE class activity Veteran's Day Thurs Nov 11 -NO CLASS
12	Nov 15 – 19	Health & Medicine	
13	Nov 22-26	Exam 2	Tues Nov 23 –Exam 2
<b>THANKSGIVING</b>	<b>Nov 24-26</b>	<b>NO CLASSES</b>	
14	Nov 29 – Dec 3		Final Group Presentations (4/day)
15	Dec 6 – 10		Final Group Presentations (4/day)
<b>FINAL EXAM</b>	<b>Tuesday Dec 14</b>	<b>2:45-4:45 p.m.</b>	