

**General Chemistry 1305**  
**Syllabus**  
**Summer 1 Term 2020**

**I. Instructor:**

Dr. Dino Villagrán

Course CRN: 30604

Online Instruction

Lecture: MTWRF 0810– 1020

Blackboard Collaborate

Contact Information:

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Microsoft Teams

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**II. COVID-19 Effects on This Course**

Due to the COVID-19 pandemic this course will be delivered online. This course has been originally designed to be held face to face, and has been adapted to be online. As such, we expect that some items during this course will work better than others. Each of the more than 200 students enrolled in this course have their own individual issues. While I will try to be flexible on some things, I will be unable to be flexible on others.

Lectures will be held from 8:10 to 10:20AM online using blackboard collaborate. Lectures will be recorded and you will be able to watch them at different times than the live streaming. Workshops will also be held using Blackboard collaborate. Attendance to workshops is **mandatory**.

The app Microsoft Teams will be used throughout the course. Office hours will be held in MS Teams by Dr. Villagran or through previous appointments. As a UTEP student you have access to Microsoft Teams on your PC or Mac, and through your phone or tablet.

The most important point here is that chemistry during the summer is tough. Being online will be tougher. Doing it during a pandemic will be even tougher. We will go very fast. So be aware of having an intense month of June.

**III. Learning Goals and Student Outcomes:**

This is the first part of General Chemistry for scientists, engineers and pre-medical students. The students in the class will gain knowledge in the foundations of atomic and molecular structure, nomenclature, physical and chemical changes of matter, fundamentals of chemical reactivity, chemical bonding, thermochemistry and the properties of gases. This lecture has two components that all students must attend: **CHEM 1305 Lecture and CHEM 1305 Lecture Workshop**. If you don't understand what this means ASK.

Prerequisites: In order to be enrolled in Chemistry 1305, you should have:

- Passed or be concurrently enrolled in Math 1508 or
- Have achieved an SAT Math score of 600 or better.

Student Major:

The CHEM 1305 - 1306 sequence is designed for students who are majoring in a field of science or engineering. Students majoring in other disciplines may prefer to take the CHEM 1407 - 1408 sequence which contains more descriptive and less quantitative material.

## Summer Term:

The summer term forces the instructor to go at a very fast pace. It is imperative for students to keep up with the assigned textbook reading **EVERY DAY**. Homework is an important component of learning. Due to the pace of the summer term, you will have to work daily on your homework, otherwise you will fall behind. It is to your own benefit to be diligent in terms of your assigned reading, homework, and studying. No work (either homework, modules, quizzes, etc.) past the deadline will be accepted.

## **IV. Course Information:**

### Required Textbook:

*Chemistry*, by Raymond Chang, Thirteenth Edition, McGraw-Hill Science. This textbook will be used in the CHEM 1306 course (second semester general chemistry) next semester. Earlier editions of the same book (i.e. tenth or ninth editions) may also be used (and may be purchased at a lower price).

Chemistry 1305 covers chapters 1 - 10 in *Chemistry* by Chang and is the first semester of the two-semester sequence in general chemistry at UTEP. This class is rigorous and demanding and **should not be attempted without adequate mathematical preparation**. Any subsections in the text, which are not to be tested on examinations, will be so indicated by me; however, reading all sections in each chapter is to your advantage. You are expected to read every chapter, and attempt the problems on the back of each chapter. If you read each chapter prior to the lectures, the content of the course will be significantly more accessible to you.

Summer classes can be difficult and tedious. For your benefit, spend a minimum of 3 hours per day reviewing the content discussed in the lecture.

The topics to be covered in the lecture will be:

1. Chemistry: the Study of Change
2. Atoms, Molecules, and Ions
3. Mass Relationships in Chemical Reactions
4. Reactions in Aqueous Solutions
5. Gases
6. Thermochemistry
7. Quantum Theory and the Electronic Structure of Atoms
8. Periodic Relationship Among the Elements
9. Chemical Bonding: Basic Concepts
10. Molecular Geometry and Hybridization of Atomic Orbitals

### Required attendance to Workshop:

- There are several workshop sections for Summer 1 2020. A peer-leader should have contacted you already about your schedule meeting time. Let us know AS SOON AS POSSIBLE if you have any time conflict.
- Workshop is a required component of CHEM 1305. **Every student enrolled in a 1305 lecture section must also be co-enrolled in a Workshop section.**
- Workshop is NOT the same as CHEM 1105 Laboratory.
- Each Workshop meets online for a two-hour period, and is instructed by a Peer Leader. The Workshop format allows the Peer Leaders to use active learning techniques to enhance understanding of the chemical principles discussed in class. Attendance is mandatory. No make-up sessions are available.

- You will need to purchase the Workbook “General Chemistry by Exploration: First Semester General Chemistry”, Spring 2020 Edition, available from the bookstore. Make sure you buy the one that corresponds to the FIRST semester of General Chemistry. (It says so in the first page). The purchase of this workbook is **mandatory**. The bookstore will be able to ship the book to you for free.
- Grading policy for **workshop** is based on participation, involvement, homework and quizzes. Absence, tardiness, or leaving early from Workshop will result in a grade reduction in the overall CHEM 1305 grade.
- Workshop grading will be composed of 100 points of Module homework, 50 points quizzes, and 50 points on participation and involvement.
- No homework or quizzes will be accepted after the deadline set by each peerleader.
- Peer Leaders: There are fourteen Peer Leaders (PLs) teaching in the CHEM 1305 Workshop Program this summer term. Each PL has specified online office hours each week. The link will be provided by your peer leaders. *You* may consult with any PL during her or his office hours, not just the PL in charge of your specific Workshop section.

### Homework:

This course covers Chapters 1-10 in the book Chemistry, 13<sup>th</sup> edition by Raymond Chang, McGraw-Hill Publishers. The 9<sup>th</sup> or the 10<sup>th</sup> editions may also be used for this course, but the numbers of the problems and sections may be different (if used, it is the student’s complete responsibility to resolve numerical differences). The 13<sup>th</sup> edition textbook can be also used in the CHEM 1306 course (second semester general chemistry) next semester. The book’s homework website is <http://connect.mcgraw-hill.com>. The electronic homework required for the course is called CONNECT. It is from the same publisher as the book. CONNECT comes with the CHANG 13<sup>th</sup> ed. (but not with other editions), so if you purchase editions other than the 11<sup>th</sup> you will have to purchase CONNECT online separately. The cost of CONNECT alone is about \$150. If you decide to use the 13<sup>th</sup> ed. of CHANG from the bookstore, then CONNECT may come with it. The CHANG 13<sup>th</sup> ed. e-Book+ CONNECT is also an acceptable option.

The following website is where all the homework assignments will be available:

<https://connect.mheducation.com/class/d-villagran-summer-2020>

You will use this link (above) to access our homework or access it via Blackboard.

No homework will be accepted after the deadline.

### Guided Reading

Through connect you will be required to complete guided reading assignments. These guided reading assignments are scheduled take about 30 minutes of your time if you had previously read the book. If you have not, they can take upwards of 90 minutes. These guided reading options will enhance your chemistry understanding and will affect your grade. No guided reading assignment will be accepted after the deadline.

### Attendance to lecture:

Lectures will be held online using the Blackboard Ultra Collaborate tool in blackboard. You will need a computer, tablet or phone to access the lecture. Lectures will be held daily from 8:10 to 10:20.

Attendance to lecture will not be mandatory. Yet, there is a strong direct correlation between good attendance and your grade. It is your responsibility to attend online lectures. Attending online lectures will allow you to ask questions in real time, and get immediate answers. However, I will record each lecture and those will be available through blackboard. Recording daily two+ hour lectures will be

technically challenging, so there may be some situations when the lectures will not be properly recorded. Attending during real time will make sure you avoid any of these issues.

### **Resources:**

1. Announcements will be made using Blackboard. All notes from lecture will be posted on Blackboard on the day each chapter is finished.

#### *Accessing Blackboard*

- 1.1. You can access Blackboard via your myUTEP page but you will need your email username and password. If you don't know your email username and password, call the HELP desk to request them (915-747-HELP).
- 1.2. Go to My.UTEP.edu and log in
- 1.3. Click on Blackboard — it's on the menu bar at the top of the page.

#### 2. Office Hours:

Dr. Villagrán Office hours will be from 12 to 1 PM Tuesdays and Wednesdays. Peer-leaders will tell you their own office hours during their respective workshops.

### **Instructor Expectations:**

Every student shall attend all lectures and workshops. Daily homework will be assigned and it will be due on the day announced. Late homework will not be credited. It is highly recommended that the student will read over the appropriate pages in the textbook and complete the required homework on time.

### **Course Withdrawal Policy**

Classes dropped prior to the official census date (**06/12/2020**) will be deleted from the student's semester record. After this date, the University permits any student to drop with an automatic "W" until **06/26/2020**. After this date students who withdraw must receive grades of "F".

## **V. Laboratories**

CHEM 1105 is a separate course from CHEM 1305 while the Workshop is an integral part of CHEM 1305. The laboratory is highly recommended for all students regardless of major. These laboratories will also be held online during the 2020 summer session.

## **VI. Examinations:**

- Four one-hour examinations and a Final are scheduled according to Section X. Three exam grades will count towards the overall grade.
- You will need a computer with internet access and camera to access the examinations.
- If you don't have one, the library may have a few available for you to check out. In addition computer labs in the library and UGLC using social distancing will be available to students. You will be able to access these computers in campus following all the regulations that UTEP, Library, and each computer lab require.
- Examinations will be held online using the Respondus Lockdown browser. This software will be available from Blackboard. Make sure it can be installed in your computer.
- It is your responsibility to be able to take the exam. If you have no access to a computer or iPad tablet you can check a computer out from the UTEP Library or use any of the available computer laboratories at UTEP.
- The exam will be open for 24 hours, and you will have about 90 minutes to finish the exam once started.
- Make sure you have a stable internet connection while attempting the exam. If your internet connection is broken the exam may be null and void. If you have technical issues, you may have a second opportunity to attempt the exam. No more opportunities will be provided.

- Exam 1 will cover chapters 1, 2 and parts of 3. Exam 2 will cover mainly chapters 3, 4, 5, but may include questions from previous chapters. Exam 3 will mainly cover chapters 6, 7, 8, and again it may include questions from previous chapters. Exam 4 will cover chapters 8, 9, and 10 and previous chapters.
- **A camera will be necessary for taking exams.** You will be required to record your text environment.
- You will have to upload photos or pictures of your work and upload them along side your exam. Failing to upload your work will result in voiding your exam. Taking pictures of your work will be the only time when you can use your phone. You will have a 15 minute grace period to upload these files after you finish your exam.
- The final examination will be comprehensive and may be longer than the previous exams.
- **You must pass the Final Examination in order to pass the course.** Failing the Final Examination will automatically prevent you from passing the course.
- CHEM 1305 examination questions are designed to test: **i)** understanding of basic concepts, and **ii)** familiarity with chemical nomenclature, usage and calculations. Examinations emphasize problem solving as opposed to memorization. You are well advised to learn the process involved in problem solving rather than memorization of specific facts. Valid absences for University related activities (e.g. out-of-town research presentations, sporting events) must be arranged **prior** to the date of the respective examination.
- No provision exists for makeup of examinations missed, but your lowest exam grade will be dropped. I.e. Your three best 1 h exam scores will be used for grade calculation.
- No caps or hats may be worn during examinations. **Show a photo identification before you start your exam. This will be recorded.**
- **Do not** use programmable calculators (i.e. a calculator capable of retaining equations or words) to the hour examinations and the final examination. Anyone seen using a programmable calculator will receive a grade of zero. You can purchase a satisfactory calculator which can perform logarithmic and exponential operations (needed for Chem. 1306) for less than \$15 at many stores.

**VII. Grades:** (*Grading is subject to revision.*)

We will use the best three grades out of the four examinations (i.e. the lowest exam grade dropped).

1. <b>Best 3 of Exams I, II, III, IV</b>	<b>300 pts.</b>
2. <b>Homework</b>	<b>100 pts.</b>
3. <b>Guided reading</b>	<b>50 pts.</b>
4. <b>Workshop</b>	<b>200 pts.</b>
5. <b>Final</b>	<b>200 pts.</b>
<b>TOTAL</b>	<b>= 850 pts.</b>

As a good approximation, a total of 765 points or better will yield an A; 680-764 a grade of B; 595-679 a grade of C; 510 to 594 a grade of D, and 509 and below will result in a grade of F.

**You must pass the Final Exam in order to get a grade of C or better.**

**VIII. Academic honesty:**

Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

During online classes, and online examinations it may seem easy to behave dishonorably. Please do not. We will have no tolerance to those found being academically dishonest.

**IX. *Students with Disabilities:***

Student with a disability can contact the Center for Accommodations and Support Services (CASS) to take exams with appropriate accommodations. The office is located in Room 106 Union East Building and can be contacted at (915) 747-5148 Voice/TTY, (915) 747-8712 Fax or at [cass@utep.edu](mailto:cass@utep.edu). If you have or believe you have a disability, you may do so by providing documentation to the Office of disabled Student Services. For additional information, please visit the CASS website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass). CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.

**X. Lecture Schedule and Evaluation (This section is tentative and subject to change.)**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
7	8 Ch 1	9 Ch 1&2	10 Ch 2&3	11 Ch 3 HW1&2 Due	12 Ch 3 Exam 1 Available	13 Exam 1 Closes
14	15 Ch 4 HW3 Due	16 Ch 4&5	17 Ch 5	18 Ch 6 HW4&5 Due	19 Ch 6 Exam 2 Available	20 Exam 2 Closes
21	22 Ch 7 HW6 Due	23 Ch 7	24 Ch 8	25 Ch 8 HW7 Due	26 Ch 9 Exam 3 Drop Day	27 Exam 3 Closes
28	29 Ch 9 HW8 Due	30 Ch 10	1 Ch 10	2 Exam 4	3 Final Exam HW9&10 Due	Final Exam Closes 4